Welcome to the second edition of the Aide Memoire. Thanks for your feedback to date; we appreciate your comments and have made some changes based on the information you have given. In addition to the key changes outlined below, the team has rearranged the order of the pathways so that the flow chat is now the first section of the pathway you will access. They have also included hyperlinks to all the phone numbers to make it easier to contact the service you require. In the GP OOH section, you will now find the bypass numbers which should reduce the amount of time you are on the phone waiting to speak to the GP out of hours. We hope that you continue to find this tool beneficial and would encourage you to continue letting us know of any suggested improvements.

On behalf of the Transformation & Modernisation Team, I would like to thank you for your continued support.

Dr Ruddell.

**Key Changes**

**Appropriate Referral & Transport Policy** and **Appropriate Referral & Transport Guideline**
These documents have been reviewed and minor amendments made. Version 2 is enclosed.

**BCH Direct / Belfast Acute Care at Home**
The telephone number for BCH Direct and Belfast Acute Care at Home has been changed. There is now one number for both services.

**COPD**
This pathway is now available in the South Eastern Trust Area. This means the pathway is regional and available in all Trust areas

**Epilepsy**
This pathway has been updated with the NASMeD guidance and the list of common drugs has been amended.

**Falls**
A new exclusion criteria has been added to the pathway - Patients who have been on the floor for >4 hours.
This pathway is now also available in the Southern sector of the Western Trust.

**GP Out of Hours**
Bypass numbers now available to contact the OOH GP.

**Heart Failure**
A new heart failure pathway is available in the Southern and Belfast Trust areas

**Prehospital Sepsis Screening Tool**
This pathway has been updated.

**Hypoglycaemia**
This pathway has been updated with the NASMeD guidance.
A new exclusion criteria has been added to this pathway - Patients being treated with a group of drugs known as sulphonylureas**

**Examples of sulphonylureas include:**
Trade name first / generic name in brackets
- Amaryl (Glimepiride)
- Daonil (Glibenclamide)
- Diamicron (Gliclazide)
- Diamicron MR (Gliclazide)
- Glibenese (Glipizide)
- Minodiab (Glipizide)
- Tolbutamide (Tolbutamide)

**Safeguarding**
A new adult and paediatric safeguarding pathway is available across all of Northern Ireland 24 / 7

**Stroke**
A new thrombectomy pilot is running for patients presenting within 12 hours of acute stroke. Patients must still be brought to the nearest stroke lysing unit for assessment with a pre-alert for all patients with symptoms of less than 4.5 hours duration, but this is extended to 12 hours duration if the patient presents to NIAS during the hours of operation of the pilot (0800hrs-1730hrs).

**Western Acute Care at Home**
A new Acute Care at Home referral pathway is available in the Western Trust
Welcome to the Northern Ireland Ambulance Service Aide Memoire.

Click on one of the buttons below to proceed.

- **APPROPRIATE CARE PATHWAYS**
- **PRF AIDE MEMOIRE**
- **CLINICAL NEWSLETTER**
- **QUALITY IMPROVEMENT COMPLIANCE TOOL**
- **APPROPRIATE REFERRAL & TRANSPORT POLICY**
- **APPROPRIATE REFERRAL & TRANSPORT GUIDELINES**
Divisional Areas

- Western
- Southern
- South Eastern
- Northern
- Belfast
<table>
<thead>
<tr>
<th>South Eastern Division</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community / District Nursing</td>
</tr>
<tr>
<td>COPD</td>
</tr>
<tr>
<td>Diabetic Hypoglycaemia Pathway</td>
</tr>
<tr>
<td>Enhanced Care at Home</td>
</tr>
<tr>
<td>Epilepsy</td>
</tr>
<tr>
<td>Falls Referral Pathway</td>
</tr>
<tr>
<td>GP Out of Hours</td>
</tr>
<tr>
<td>Minor Injury Unit</td>
</tr>
<tr>
<td>Palliative Care</td>
</tr>
<tr>
<td>pPCI Cath Lab</td>
</tr>
<tr>
<td>Safeguarding</td>
</tr>
<tr>
<td>Stroke</td>
</tr>
</tbody>
</table>
Western Division

- Acute Care at Home
- Community / District Nursing
- COPD
- Diabetic Hypoglycaemia Pathway
- Epilepsy
- Falls Referral Pathway
- GP Out of Hours
- Minor Injury Unit
- Palliative Care
- pPCI Cath Lab
- Safeguarding
- Stroke
PRF Aide Memoire

- Burns
- GCS
- APGAR
- Mental Health
- NEWS Score
- Pulmonary Embolism
- ATMIST
- Paediatric
- Sepsis Screening Tool
Burns

Adult

- Head = 9% (front and back)
- Back = 18%
- Right arm = 9%
- Left arm = 9%
- Perineum = 1%
- Right leg = 18%
- Left leg = 18%

Child

- Head = 18% (front and back)
- Back = 18%
- Right arm = 9%
- Left arm = 9%
- Perineum = 1%
- Right leg = 13.5%
- Left leg = 13.5%
<table>
<thead>
<tr>
<th>Category</th>
<th>Adult</th>
<th>Score</th>
<th>Children Under 4</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Eyes Opening</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spontaneously</td>
<td>4</td>
<td></td>
<td>Spontaneously</td>
<td>4</td>
</tr>
<tr>
<td>To Speech</td>
<td>3</td>
<td></td>
<td>To Speech</td>
<td>3</td>
</tr>
<tr>
<td>To Pain</td>
<td>2</td>
<td></td>
<td>To Pain</td>
<td>2</td>
</tr>
<tr>
<td>None</td>
<td>1</td>
<td></td>
<td>None</td>
<td>1</td>
</tr>
<tr>
<td><strong>Verbal Response</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orientated</td>
<td>5</td>
<td></td>
<td>Appropriate words or social smiles, fixes on and follows objects</td>
<td>5</td>
</tr>
<tr>
<td>Confused</td>
<td>4</td>
<td></td>
<td>Cries but Consolable</td>
<td>4</td>
</tr>
<tr>
<td>Inappropriate Words</td>
<td>3</td>
<td></td>
<td>Persistently Irritable</td>
<td>3</td>
</tr>
<tr>
<td>Incomprehensible Sounds</td>
<td>2</td>
<td></td>
<td>Restless, Agitated</td>
<td>2</td>
</tr>
<tr>
<td>No Verbal Response</td>
<td>1</td>
<td></td>
<td>Silent</td>
<td>1</td>
</tr>
<tr>
<td><strong>Motor Response</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obeys Commands</td>
<td>6</td>
<td></td>
<td>Obeys Commands</td>
<td>6</td>
</tr>
<tr>
<td>Localises Pain</td>
<td>5</td>
<td></td>
<td>Localises Pain</td>
<td>5</td>
</tr>
<tr>
<td>Withdraws From Pain</td>
<td>4</td>
<td></td>
<td>Withdraws From Pain</td>
<td>4</td>
</tr>
<tr>
<td>Abnormal Flexion</td>
<td>3</td>
<td></td>
<td>Abnormal Flexion</td>
<td>3</td>
</tr>
<tr>
<td>Extensor Response</td>
<td>2</td>
<td></td>
<td>Extensor Response</td>
<td>2</td>
</tr>
<tr>
<td>No Response to Pain</td>
<td>1</td>
<td></td>
<td>No Response to Pain</td>
<td>1</td>
</tr>
</tbody>
</table>
# APGAR

## Newborn APGAR Score

<table>
<thead>
<tr>
<th>Score</th>
<th>0</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
<td>Blue or pale all over</td>
<td>Blue at extremities, body pink</td>
<td>Body and extremities pink</td>
</tr>
<tr>
<td><strong>Pulse Rate</strong></td>
<td>Absent</td>
<td>&lt;100</td>
<td>≥100</td>
</tr>
<tr>
<td><strong>Grimace or Response to Stimulation</strong></td>
<td>No Response to Stimulation</td>
<td>Grimace / feeble cry when stimulated</td>
<td>Cry or pull away when stimulated</td>
</tr>
<tr>
<td><strong>Activity or Muscle Tone</strong></td>
<td>None</td>
<td>Some flexion</td>
<td>Flexed arms and legs that resist extension</td>
</tr>
<tr>
<td><strong>Respiration</strong></td>
<td>Absent</td>
<td>Weak, irregular, gasping</td>
<td>Strong, lusty cry</td>
</tr>
</tbody>
</table>
# Suicide and Self Harm Risk Assessment Guide

<table>
<thead>
<tr>
<th>ITEM</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex: Female</td>
<td>0</td>
</tr>
<tr>
<td>Sex: Male</td>
<td>1</td>
</tr>
<tr>
<td>Age: &lt; 19 years old</td>
<td>1</td>
</tr>
<tr>
<td>Age: &gt; 45 years old</td>
<td>1</td>
</tr>
<tr>
<td>Depression / hopelessness</td>
<td>1</td>
</tr>
<tr>
<td>Previous attempts at self harm</td>
<td>1</td>
</tr>
<tr>
<td>Evidence of excess alcohol / illicit drug use</td>
<td>1</td>
</tr>
<tr>
<td>Rational thinking absent</td>
<td>1</td>
</tr>
<tr>
<td>Separated / widowed / divorced</td>
<td>1</td>
</tr>
<tr>
<td>Organised or serious self-harm</td>
<td>1</td>
</tr>
<tr>
<td>No close / reliable family, job or active religious affiliation</td>
<td>1</td>
</tr>
<tr>
<td>Determined to repeat or ambivalent</td>
<td>1</td>
</tr>
</tbody>
</table>

- **> 6 = HIGH RISK**
- **3 - 6 = MEDIUM RISK**
- **< 3 = LOW RISK**
A patient has mental capacity if they can answer YES to the following questions:

- Does the patient have an understanding of what decision they need to make and why they need to make it?
- Do they understand the consequences of making, or not making the decision, or of deciding one way or another?
- Are they able to understand and weigh up the relevant importance of the information relevant to the decision?
- Can they use and retain the information as part of the decision making process?
- Can they communicate their decision?
# NEWS Score

If the total score **exceeds 4** or if any parameter triggers an individual red score, the patient should be conveyed to an appropriate facility. The patient’s physiological norms should be taken into consideration when interpreting the red scores.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>National Early Warning Score (NIAS Edition)</th>
<th>Individual Score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Respiratory Rate</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;= 25</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>21 - 24</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>12 - 20</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>9 - 11</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>&lt;= 8</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>O2 Saturation (%) (with O2 therapy)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;= 96</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>94 - 95</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>92 - 93</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>&lt;=91</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Tympanic Temperature</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;= 39</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>&lt;= 35</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Systolic BP (mmHg)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;= 220</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>110 - 219</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>100 - 109</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>90 - 99</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>&lt;=89</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Heart Rate</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;= 130</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>110 - 129</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>90 - 109</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>50 - 89</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>40 - 49</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>&lt;= 39</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Central Nervous System</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alert</td>
<td>Responds to Voice / Pain / Unresponsive</td>
<td>3</td>
</tr>
</tbody>
</table>

If the total score exceeds 4 or if any parameter triggers an individual red score, the patient should be conveyed to an appropriate facility. The patient’s physiological norms should be taken into consideration when interpreting the red scores.
Wells Criteria for PE

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical signs and symptoms of DVT (leg swelling and pain with palpation of the deep veins)</td>
<td>3</td>
</tr>
<tr>
<td>An alternative diagnosis is less likely than pulmonary embolism</td>
<td>3</td>
</tr>
<tr>
<td>Pulse rate &gt; 100 beats per minute</td>
<td>1.5</td>
</tr>
<tr>
<td>Immobilisation or surgery in the previous 4 weeks</td>
<td>1.5</td>
</tr>
<tr>
<td>Previous DVT / pulmonary embolism</td>
<td>1.5</td>
</tr>
<tr>
<td>Haemoptysis</td>
<td>1</td>
</tr>
<tr>
<td>Malignancy (treatment ongoing, or within previous 6 months, or palliative)</td>
<td>1</td>
</tr>
</tbody>
</table>

Total: 12

Clinical Probability of PE:

- **> 6 Points: High**
- **2 - 6 Points: Moderate**
- **< 2 Points: Low**
<table>
<thead>
<tr>
<th>A</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>T</td>
<td>Time of Incident</td>
</tr>
<tr>
<td>M</td>
<td>Mechanism</td>
</tr>
<tr>
<td>I</td>
<td>Injuries</td>
</tr>
<tr>
<td>S</td>
<td>Signs and Symptoms</td>
</tr>
<tr>
<td>T</td>
<td>Treatment Given / Immediate Needs</td>
</tr>
</tbody>
</table>
## Normal Paediatric Parameters

<table>
<thead>
<tr>
<th>Age</th>
<th>Weight</th>
<th>Heart Rate</th>
<th>Respiration Rate</th>
<th>Systolic BP</th>
<th>SHOCK</th>
<th>MRX Pad</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth</td>
<td>3.5 Kg</td>
<td>110 - 160</td>
<td>30 - 40</td>
<td>70 - 90</td>
<td>20</td>
<td>INFANT &lt; 10kg</td>
</tr>
<tr>
<td>1 Month</td>
<td>4.5 Kg</td>
<td>110 - 160</td>
<td>30 - 40</td>
<td>70 - 90</td>
<td>20</td>
<td>INFANT &lt; 10kg</td>
</tr>
<tr>
<td>3 Months</td>
<td>6 Kg</td>
<td>110 - 160</td>
<td>30 - 40</td>
<td>70 - 90</td>
<td>25</td>
<td>INFANT &lt; 10kg</td>
</tr>
<tr>
<td>6 Months</td>
<td>8 Kg</td>
<td>110 - 160</td>
<td>30 - 40</td>
<td>70 - 90</td>
<td>40</td>
<td>INFANT &lt; 10kg</td>
</tr>
<tr>
<td>9 Months</td>
<td>9 Kg</td>
<td>110 - 160</td>
<td>30 - 40</td>
<td>70 - 90</td>
<td>40</td>
<td>INFANT &lt; 10kg</td>
</tr>
<tr>
<td>12 Months</td>
<td>10 Kg</td>
<td>110 - 150</td>
<td>25 - 35</td>
<td>80 - 95</td>
<td>40</td>
<td>INFANT &lt; 10kg</td>
</tr>
<tr>
<td>18 Months</td>
<td>11 Kg</td>
<td>110 - 150</td>
<td>25 - 35</td>
<td>80 - 95</td>
<td>50</td>
<td>ADULT / CHILD &gt; 10kg</td>
</tr>
<tr>
<td>2 Years</td>
<td>12 Kg</td>
<td>95 - 140</td>
<td>25 - 30</td>
<td>80 - 100</td>
<td>50</td>
<td>ADULT / CHILD &gt; 10kg</td>
</tr>
<tr>
<td>3 Years</td>
<td>14 Kg</td>
<td>95 - 140</td>
<td>25 - 30</td>
<td>80 - 100</td>
<td>60</td>
<td>ADULT / CHILD &gt; 10kg</td>
</tr>
<tr>
<td>4 Years</td>
<td>16 Kg</td>
<td>95 - 140</td>
<td>25 - 30</td>
<td>80 - 100</td>
<td>70</td>
<td>ADULT / CHILD &gt; 10kg</td>
</tr>
<tr>
<td>5 Years</td>
<td>19 Kg</td>
<td>80 - 120</td>
<td>20 - 25</td>
<td>90 - 100</td>
<td>80</td>
<td>ADULT / CHILD &gt; 10kg</td>
</tr>
<tr>
<td>6 Years</td>
<td>21 Kg</td>
<td>80 - 120</td>
<td>20 - 25</td>
<td>80 - 110</td>
<td>80</td>
<td>ADULT / CHILD &gt; 10kg</td>
</tr>
<tr>
<td>7 Years</td>
<td>23 Kg</td>
<td>80 - 120</td>
<td>20 - 25</td>
<td>90 - 110</td>
<td>100</td>
<td>ADULT / CHILD &gt; 10kg</td>
</tr>
<tr>
<td>8 Years</td>
<td>26 Kg</td>
<td>80 - 120</td>
<td>20 - 25</td>
<td>90 - 110</td>
<td>100</td>
<td>ADULT / CHILD &gt; 10kg</td>
</tr>
<tr>
<td>9 Years</td>
<td>29 Kg</td>
<td>80 - 120</td>
<td>20 - 25</td>
<td>90 - 110</td>
<td>120</td>
<td>ADULT / CHILD &gt; 10kg</td>
</tr>
<tr>
<td>10 Years</td>
<td>32 Kg</td>
<td>80 - 120</td>
<td>20 - 25</td>
<td>90 - 110</td>
<td>130</td>
<td>ADULT / CHILD &gt; 10kg</td>
</tr>
<tr>
<td>11 Years</td>
<td>35 Kg</td>
<td>80 - 120</td>
<td>20 - 25</td>
<td>90 - 110</td>
<td>140</td>
<td>ADULT / CHILD &gt; 10kg</td>
</tr>
</tbody>
</table>
Paediatric

Useful Formulas

Weight = \((\text{Age} + 4) \times 2\)

<table>
<thead>
<tr>
<th>Fluids</th>
<th>Airway</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trauma: 5ml/kg</td>
<td>ET Tube Internal Diameter: ((\text{Age} / 4) + 4)</td>
</tr>
<tr>
<td>Medical Emergency: 20ml/kg excluding above</td>
<td>ET Tube Length: ((\text{Age} / 2) + 12)</td>
</tr>
<tr>
<td>DKA, Renal / Cardiac Failure: 10ml/kg once only over 15min</td>
<td></td>
</tr>
</tbody>
</table>

Burns

10ml/kg given over 1 hour

TBSA: between 10% and 20% and time to hospital > 30 minutes

TBSA: more than 20%

Refer to JRCALC for maximum dosage

Wong-Baker FACES™ Pain Rating Scale

0: No Hurt
2: Hurts Little Bit
4: Hurts Little More
6: Hurts Even More
8: Hurts Whole Lot
10: Hurts Worst

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Prehospital Sepsis Screening and Action Tool

Use for all adult (>16 years) patients who are not pregnant

If life is clearly immediately threatened, transport urgently with interventions en route

1. Could this be a severe infection?
   For example:
   • Pneumonia
   • UTI
   • Abdominal pain or distension
   • Meningitis
   • Cellulitis / septic arthritis / infected wound
   • Chemotherapy <6 weeks
   • Recent organ transplant

   Y → Discontinue form. Apply standard protocols.

   N → 1. Are any 2 of the following present?
      • Temperature > 38.3°C or < 36.0°C
      • Respiratory rate > 20 per minute
      • Heart rate > 90 per minute
      • Acute confusion / reduced conscious level
      • Glucose > 7.7 mmol/l (unless DM)

      Y → Sepsis Possible!
      N → 3. Is there suggestion of shock?
         • Mottled/ cold peripheries
         • Central capillary refill ≥ 3 sec
         • Systolic B.P < 90 mmHg or MAP < 60 mmHg
         • Purpuric rash
         • Absent radial pulse
         • Lactate > 2 mmol/l

         Y → SEPTIC SHOCK!
         N → Transfer using lights and sirens to nearest receiving Emergency Department

         Pre-alert, situation:
         "SUSPECTED SEPTIC SHOCK!"

         Immediate:
         • 250ml boluses crystalloid to maximum 2000ml repeated based on response (care in CHD)
         • Oxygen 15 L/min via NRB

         Record actions on PRF.

         Y → Possible Sepsis!
         Evaluate need for transfer to hospital.
         Ensure same day assessment by medical professional in primary or secondary care.
         Record actions on PRF.

         N → Y
Community / District Nursing

NIAS GUIDANCE FOR REFERRAL to Community Nursing (District Nurse / Rapid Response) Teams.

IMPLEMENTATION DATE: 22/02/2016

SOURCE: Dr Ruddell. Assistant Medical Director
Ciarán McKenna. Clinical Service Improvement Lead.

26 November 2015
Duty of Care

Once the community nurse has accepted the referral he/she has accepted the duty of care for the patient.
Guidance for referral to Community Nursing (District Nurse / Rapid Response Nurse)
Teams effective from 22/02/2016

Community nurses offer a number of services that will enable patients to be treated in the community and avoid unnecessary visits to the Emergency Department. NIAS paramedics are now able to refer appropriate patients to the community nursing teams.

By referring appropriate patients to the team, the patient is likely to receive more timely treatment, be less inconvenienced and have a better patient experience. NIAS crews will also avoid potentially long handover times and therefore improve availability for subsequent emergency calls.

Attending crews should use the following guidance to assess if a patient is suitable for referral to a community nursing team.

Catchment area
The community nursing referral pathway is a regional pathway available in all Trust areas.

Inclusion Criteria for referral to a district nursing team:
- Patient is over 18 years of age
- Blocked catheters
- Wound management – including post-surgical wounds and pressure ulcers.
- Continence management for immobile patients
- Syringe drivers / PEG tubes
- Central line management – Hick/PICC
- End of life care
- Known diabetic patients who require insulin administration

Exclusion Criteria
Patients with any of the following should be transported to an appropriate emergency department:
- Critically unwell patients, likely to need immediate resuscitation or for those who would normally require a standby
- Patients who require full medical assessment / further investigation e.g. X ray
- Acute chest pain
- Acute shortness of breath / difficulty in breathing
- Patients with suspected DVT; MI, TIA or stroke
- Patients with acute mental health issue
- Patients with acute surgical or orthopaedic crisis
- Acute confusion
- Collapse
- Acute abdominal pain
- Haematuria
- Temperature > 38°C for more than 48 hours on IV antibiotics
- Oxygen saturation < 92% on room air
- Unexplained pain
Making the referral

For patients who meet the inclusion criteria, the attending paramedic should ring the Emergency Ambulance Control (EAC) room on 02890 404021 to obtain the relevant community nursing team telephone number.

The paramedic should then contact the community nursing team directly on the number provided. A call handler will take the patient details which include:

- Patients GP name
- Patient address
- Patient phone number
- Whether the patient currently receiving district nursing services

The community nurse will contact the paramedic via phone within 20 minutes and advise if the patient is suitable for referral or if they should be taken to the ED. The community nurse will also provide a phone number for the patient to contact the community nurse directly should there be any queries after the paramedic has left.

Should the community nurse not return the telephone call within 20 minutes, the patient should be transported to the ED.

Once the referral has been accepted, the community nurse will attend to the patient within a mutually agreed timeframe or a maximum of 4 hours.

Once the referral has been accepted and the community nurse agrees to attend, the community nurse has accepted duty of care for that patient. The crew should inform EAC that the community nursing Appropriate Care Pathway has been used before clearing.

Community nursing referral pathway hours of operation

The referral pathway is available as follows:

- South Eastern Trust – 24 / 7
- Belfast Trust – 24 / 7
- Western Trust – 7 day service 0900 – midnight
- Northern Trust – 7 day service 0900-0800
- Southern Trust – 7 day service 0900-2300

Duty of Care

Once the community nurse has verbally accepted the referral and agreed to attend, they have accepted the duty of care for that patient.

The patient / responsible person should be advised that the community nurse will attend within a maximum of 4 hours.

The patient / responsible person should be given a contact number for the community nurse should they have a query about their arrival time.

The patient / responsible person should be given advice to ring 999 should their condition deteriorate before the community nurse arrives or if they fail to arrive.

Agreement to accept the patient by the community nurse and advice given to the patient should be documented on the patient report form.

A copy of the patient report form should be left with the patient for the community nurse to view on their arrival.
NIAS
REFERRAL GUIDANCE
for Patients with Exacerbation of COPD.

IMPLEMENTATION DATE:
09/11/2015

SOURCE: Ciarán McKenna. Clinical Service Improvement Lead.
Dr Rose Sharkey. Clinical Lead Respiratory.
Referral Guidance for Patients with Exacerbation of COPD

Patients with a diagnosis of COPD who present with any of the following should be transported to the Emergency Department:

- Acutely unwell patients, likely to need immediate resuscitation or for those who would normally require a standby
- Unstable patients – i.e. Respiratory rate > 30 breaths per minute and SpO2 <90% on room air or home oxygen
- Severe breathlessness
- Central cyanosis
- Impaired level of consciousness or acute confusion
- Significant co-morbidity e.g. cardiac failure
- Patients on home non-invasive ventilation or patients with a tracheostomy
- Patients unable to cope at home
- Patients who refuse care at home

For patients who meet the inclusion criteria, the crew should ring the CRT on:

Northern Trust
Coleraine / Causeway: 07710882595  East Antrim: 07809553082
Mid Ulster: 07795515844  Antrim / Ballymena: 07841468943

Western Trust
Derry / Londonderry: 02871865157 / 07464493565  Fermanagh: 02866382471 / 07464493569
Omagh / Strabane: 02882833834 / 07464493567

Belfast Trust
Belfast (North / West): 07703378951  Belfast (South / East): Mon - Fri 07795694210  Sat - Sun 07860179468

Southern Trust
Craigavon / Banbridge: 07464493672  Armagh / Dungannon: 07464493950
Newry / Mourne: 07464493951

South Eastern Trust
North Downe / Ards: 07850216339  Downe / Lisburn: 02895988000

When the referral has been made, the crew should:

- Leave the patient in the care of a responsible person while waiting for a member of the CRT to arrive
- Advise the patient that the CRT member will attend within 2 hours or the time advised by the CRT member.
- Advise the patient to ring 999 should their condition deteriorate before the CRT member arrives or if they fail to arrive.
- Document on the patient report form both the advice given to the patient and confirmation that the patient has been accepted by the CRT.
- Leave a copy of the patient report form with the patient for the CRT member to view on their arrival.
NIAS Referral Guidance for patients with Exacerbation of COPD

Chronic Obstructive Pulmonary Disease (COPD)
COPD is a term used to describe a number of conditions including chronic bronchitis and emphysema. COPD is characterised by airflow obstruction that is not fully reversible. The airflow obstruction does not change markedly over several months and is usually progressive in the long term (NICE COPD Guidelines, 2010). COPD usually affects patients over the age of 35 years and is predominantly caused by smoking. Other factors, particularly occupational exposures, may also contribute to the development of COPD. There are approximately 36000 people living with COPD in NI.

Exacerbation of COPD
An exacerbation is a sustained worsening of the patient’s symptoms from their usual stable state which is beyond normal day-to-day variations, and is acute in onset. Commonly reported symptoms are worsening breathlessness, cough, increased sputum production and change in sputum colour. The change in these symptoms often necessitates a change in medication (NICE COPD Guidelines, 2010). NIAS paramedics can now refer patients experiencing an exacerbation of COPD to the Community Respiratory Teams (CRT) across Northern Ireland. This pathway is available in all Trust areas.

Inclusion Criteria for referral to CRT
Patients who meet the following criteria are suitable for referral to the CRT:
- Patients with a confirmed diagnosis of COPD and already known to the Community Respiratory Team
- Fully orientated and co-operative
- Respiratory Rate < 30 breaths / minute
- SpO2 > 90% on room air or home oxygen
- Adequate social support
- Patient has telephone or family member/carer consents to be point of contact

Exclusion Criteria
The following patients should be transported directly to the ED:
- Acutely unwell patients, likely to need immediate resuscitation or for those who would normally require a standby
- Unstable patients – i.e. Respiratory rate > 30 breaths per minute and SpO2 <90% on room air or home oxygen
- Severe breathlessness
- Central cyanosis
- Impaired level of consciousness or acute confusion
- Significant co-morbidity e.g. cardiac failure
- Patients on home non-invasive ventilation or patients with a tracheostomy
- Patients unable to cope at home
- Patients who refuse care at home
Services Available to the CRT
The CRT has access to the following healthcare professionals / services:

- Respiratory doctor advice
- Respiratory nurse
- Pharmacist / Medication review
- Physiotherapist
- Smoking cessation advice
- Pulmonary rehabilitation
- Patient support groups

Making the referral to the CRT
Community Respiratory teams are available in ALL Trust areas. The paramedic should ring the CRT to discuss if the patient is suitable for referral. The CRT contact details are:

**Northern Trust**

<table>
<thead>
<tr>
<th>Area</th>
<th>Contact Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coleraine / Causeway</td>
<td>07710882595</td>
</tr>
<tr>
<td>Mid Ulster</td>
<td>07795515844</td>
</tr>
<tr>
<td>East Antrim</td>
<td>07809553082</td>
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<tr>
<td>Antrim / Ballymena</td>
<td>07841468943</td>
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</table>

**Belfast Trust**

<table>
<thead>
<tr>
<th>Area</th>
<th>Contact Details</th>
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<tbody>
<tr>
<td>Belfast (North / West)</td>
<td>07703378951</td>
</tr>
<tr>
<td>Belfast (South / East)</td>
<td>Mon - Fri 07795694210</td>
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<tr>
<td></td>
<td>Sat - Sun 07860179468</td>
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<tr>
<td>Derry / Londonderry</td>
<td>02871865157 / 07464493565</td>
</tr>
<tr>
<td>Fermanagh</td>
<td>02866382471 / 07464493569</td>
</tr>
<tr>
<td>Omagh / Strabane</td>
<td>02882833834 / 07464493567</td>
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</table>

**Western Trust**

<table>
<thead>
<tr>
<th>Area</th>
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</thead>
<tbody>
<tr>
<td>Craigavon / Banbridge</td>
<td>07464493672</td>
</tr>
<tr>
<td>Newry / Mourne</td>
<td>07464493951</td>
</tr>
<tr>
<td>Armagh / Dungannon</td>
<td>07464493950</td>
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**Southern Trust**

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<tr>
<td>Craigavon / Banbridge</td>
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</tr>
<tr>
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<td>Armagh / Dungannon</td>
<td>07464493950</td>
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</table>

**South Eastern Trust**

<table>
<thead>
<tr>
<th>Area</th>
<th>Contact Details</th>
</tr>
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<tbody>
<tr>
<td>North Downe / Ards</td>
<td>07850216339</td>
</tr>
<tr>
<td>Downie / Lisburn</td>
<td>02895988000</td>
</tr>
<tr>
<td>Downie / Lisburn</td>
<td>02895988000</td>
</tr>
</tbody>
</table>

Hours of operations
The Northern Health and Social Care Trust community respiratory teams operate a Mon - Fri 0900 - 1700hrs service.
The Western Health and Social Care Trust community respiratory teams operate a 7 day service from 0900 – 1700hrs.
The Belfast Health and Social Care Trust community respiratory teams operate a 7 day service from 0900 – 1700hrs.

**The BHSCRT CRT operates a limited service on a Saturday / Sunday**
The Southern Health and Social Care Trust community respiratory teams operate a Mon - Fri 0900 - 1700hrs service and a weekend and Bank Holiday 1100 - 1600hrs service.
The South Eastern Health and Social Care Trust community respiratory team operate a Mon – Fri 0900 - 1630hrs service.
Duty Of Care

- Once the CRT has verbally accepted the referral and agreed to attend, the Health and Social Care Trust have accepted the duty of care for that patient.
- The patient should be left in the care of a responsible person while waiting for CRT member to arrive.
- The patient should be advised that the CRT member will attend within 2 hours or the time advised by the CRT member.
- The patient should be given advice to ring 999 should their condition deteriorate before the CRT member arrives or if they fail to arrive.
- Agreement to accept the patient by the CRT and advice given to the patient should be documented on the patient report form.
- A copy of the patient report form should be left with the patient for the CRT member to view on their arrival.

Rescue medications

Some patients with COPD are given “rescue medications” to keep at home in the event that they have a flare up of their symptoms. The medications usually consist of oral steroids and antibiotics. Paramedics may instruct patients to commence their rescue medication pending the arrival of the CRT member or appointment with their GP. This decision will be made following the paramedic telephone discussion with the CRT.

Non Invasive ventilation

Patients who have home non-invasive ventilation (NIV) but require transport to the ED should have their NIV machine brought with them.

Oxygen Alert cards / bracelets

Patients with a history of Type 2 Respiratory failure (elevated pCO2) may have an oxygen alert card or bracelet. This will record that the patient’s SaO2 should be maintained between 88-92% and this will guide paramedics when administering oxygen during an exacerbation of the COPD.

Patient Support Group

The British Lung Foundation offer a helpline staffed by specialist nurses and advisors. The advice line is available Mon – Fri from 0900 – 1700. For advice ring 03000030555.
Diabetic Hypoglycaemia Referral Pathway

NIAS
REFERRAL GUIDANCE
for Patients who have been treated for hypoglycaemia.

IMPLEMENTATION DATE:
14/07/2014

SOURCE: Dr Nigel Ruddell. Assistant Medical Director.
Ciarán McKenna. Clinical Service Improvement Lead.

Version 4 Updated: 09 January 2017
Referral Guidance for Patients who have been Treated for Hypoglycaemia

NIAS paramedic response to 999 call

The referral pathway is available 24 / 7 in ALL Trust areas.

Patient meets inclusion criteria:
- Patient is over 18
- Patient is a known diabetic
- Blood glucose ≥ 5mmol following treatment
- The patient has eaten long acting carbohydrates e.g. bread, potatoes, bananas
- Patient consents to remaining at home
- Patient can be left in the care of a responsible person

The following patients should be transported to ED:
- Acutely unwell patients, likely to need immediate resuscitation or for those who would normally require a standby
- Patients with a GSC < 15 following treatment
- Patients with associated complicating factors e.g renal dialysis; chest pain; cardiac arrhythmias; dyspnoea; seizures or focal neurological signs / symptoms
- Patients under the influence of alcohol / drugs
- Patients with signs of infection e.g. flu like symptoms / fever
- Patients who do not experience warning signs prior to their hypoglycaemic episode
- Patients with a history of recurrent hypoglycaemic episodes within the past week
- Patients being treated with a group of drugs known as sulphonylureas

For patients who meet the inclusion criteria, the paramedic should contact the Emergency Ambulance Control (EAC) on 02890 404040 and provide the following information:
- Treatment provided
- Patient Name,
- Address (if different),
- Contact Phone Number,
- Date of Birth,
- Blood Sugar on arrival,
- Blood sugar post treatment

The Emergency Medical Dispatcher must record this information in the C3 notepad section of the call. The call should then be stopped using stop code ‘ACP – D’ (Appropriate Care Pathway – Diabetes)

The patient should be advised that the diabetic specialist team will make contact within 2 working days. The patient should be given advice to ring 999 should their condition deteriorate or they have a further hypoglycaemic episode after NIAS leave.

The patient report form should reference that a referral has been made

A copy of the patient report form should be left with the patient.
NIAS Referral Guidance for patients who have been treated for hypoglycaemia updated on 09 January 2017

Transforming Your Care (TYC) is a regional modernisation programme with care models which aim to enhance locally accessible services and development of pathways so that where it is safe and appropriate to do so, more people will be cared for closer to home. NIAS have now implemented a diabetes see, treat and refer pathway which supports the evidence published by the National Institute for Health and Care Excellence. The NICE guidelines (2015) Type 1 diabetes in adults: diagnosis and management state that people with diabetes who have experienced hypoglycaemia requiring medical attention from paramedics should be referred to a specialist diabetic team. The aim is to reduce the number of people who have a recurrent episode of hypoglycaemia and reduce the number of people with diabetes who require medical attention as a result of a hypoglycaemic episode.

Diabetes mellitus is a chronic complex metabolic disorder characterized by high levels of blood glucose and caused by defects in insulin secretion and/or action. The pancreas doesn’t produce sufficient insulin to help glucose enter the body’s cells or the insulin that is produced does not work properly. There are two main types of diabetes:

- Type 1 diabetes is caused by an autoimmune destruction of the islet cells in the pancreas and reduced production of insulin.
- Type 2 diabetic patients generally have higher than normal blood insulin levels, but tissues become insensitive to it. There is thus a relative deficiency of insulin.

A report commissioned, by Novo Nordisk, assisted by Diabetes UK and produced by C3 Collaborating for Health, April 2012, has identified the following information:

- In 2011, 72,693 adults in Northern Ireland were diagnosed with diabetes representing 3.8% of the population
- Diabetes care costs Northern Ireland more than £1 million per day, or 10% of the health care budget

By referring appropriate patients to the diabetic specialist team, the patient is likely to receive enhanced patient care, be less inconvenienced and have a better patient experience. NIAS crews will also avoid potentially long handover times and therefore improve availability for subsequent emergency calls.

Inclusion Criteria

- Patient is over 18
- Patient is a known diabetic
- Blood glucose ≥ 5mmol following treatment
- The patient has eaten long acting carbohydrates e.g. bread; potatoes; bananas
- Patient consents to remaining at home
- Patient can be left in the care of a responsible person

Exclusion Criteria

The following patients should be transported directly to the ED:

- Acutely unwell patients, likely to need immediate resuscitation or for those who would normally require a standby.
- Patients with a GCS < 15 following treatment
- Patients with associated complicating factors e.g. renal dialysis; chest pain; cardiac arrhythmias; dyspnoea; seizures or focal neurological signs / symptoms
- Patients under the influence of alcohol / drugs
- Patients with signs of infection e.g. flu like symptoms / fever
- Patients who do not experience warning signs prior to their hypoglycaemic episode
- Patients with a history of recurrent hypoglycaemic episodes within the past week
- Patients being treated with a group of drugs known as sulphonylureas**
**Examples of sulphonylureas include:
Trade name first / generic name in brackets
  - Amaryl (Glimepiride)
  - Daonil (Glibenclamide)
  - Diamicron (Gliclazide)
  - Diamicron MR (Gliclazide)
  - Glibenese (Glipizide)
  - Minodiab (Glipizide)
  - Tolbutamide (Tolbutamide)

NASMED guidance
All patients, of all ages, who have had an ambulance response to a hypoglycaemic episode or a seizure should automatically be referred for follow up. The referral should be made to either the patient’s GP or other appropriate service such as diabetes or epilepsy specialist teams according to the local ambulance service agreed pathways. The service should then follow up the patient and address any issues of concern, which may include driving or operating machinery. The patient should be informed of the referral, and even if the patient objects, the referral should still be made.

Making the referral
The referral pathway is available 24 / 7 in ALL Trusts. Once a paramedic has identified a patient suitable for referral, they should contact the Emergency Ambulance Control (EAC) on 02890 404021 and provide the following information:
  - Treatment provided
  - Patient Name,
  - Address (if different),
  - Contact Phone Number,
  - Date of Birth,
  - Blood Sugar on arrival,
  - Blood sugar post treatment

The Emergency Medical Dispatcher must record this information in the C3 notepad section of the call. The call should then be stopped using stop code ‘ACP – D’ (Appropriate Care Pathway – Diabetes)

Further advice
The patient should be advised that the diabetic specialist team will make contact within 2 working days.
The patient should be given advice to ring 999 should their condition deteriorate or they have a further hypoglycaemic episode after NIAS leave.
The patient report form should reference that a referral has been made
A copy of the patient report form should be left with the patient.
Epilepsy

NIAS
TREAT & LEAVE GUIDANCE
for Adults with Epilepsy.

IMPLEMENTATION DATE:
09/11/2015

SOURCE: Ciarán McKenna. Clinical Service Improvement Lead.
Dr Nigel Ruddell. Assistant Medical Director

Updated 02 November 2016
The treat & leave pathway is in place 24/7 across Northern Ireland.

The following patients meet the criteria for treat & leave:
- Patient is known to have epilepsy
- The presentation and duration of the seizure is what the patient would normally experience
- The patient has fully recovered and has mental capacity
- The patient can be left in the care of a responsible person
- The patient has access to and is compliant with their regular prescribed medication
- The patient's vital signs including BM, temperature and 12 lead ECG are within normal limits

For patients who can be safely treated and left on scene, the crew should:
- Leave the patient in the care of a responsible person
- Advise the patient/responsible person to re-call 999 should they have another seizure or their condition deteriorates
- Complete the PRF and leave a copy of it with the patient

The following patients do not meet the inclusion criteria and should be transported to the ED:
- Patients who are actively fitting or who require paramedic intervention to resolve the seizure
- Patients with an atypical seizure i.e. patients whereby the duration or presentation of the fit is different to what they would normally experience
- Patients who are status epilepticus - this is defined as patients who are having persistent and continual seizures lasting greater than 5 minutes
- Patients who are having repeated tonic clonic seizures occurring over a 30 minute period without recovery of consciousness between each seizure.
- Febrile convulsions
- Patients under 16 years of age
- Patients who have had a recent adjustment in their medications
- Patients with a history of recent head injury
- Patients who are pregnant OR are known to have pre-eclampsia
- Patients presenting with a fever OR who had felt unwell prior to the seizure
- Patients who are under the influence of alcohol or drugs
- Patients who are experiencing serial convulsions (3 or more in an hour) OR who have had an increased frequency of seizures
- First presentation seizures
- Patients who have sustained significant injury as a result of their seizure that requires further assessment.

The paramedic should give consideration for any medication taken prior to their arrival e.g. buccal midazolam

Refer to patients own GP or Out of Hours GP
Treat & Leave Guidance for Adults with Epilepsy updated from 2 November 2016

Epilepsy is a group of disorders in which fits or seizures occur as a result of spontaneous abnormal electrical discharge in any part of the brain. Epilepsy is usually only diagnosed after a person has had more than one seizure. There are over 40 types of epilepsy, so just knowing that a person ‘has epilepsy’ does not tell you very much about their epilepsy and the type of seizures they have.

In Northern Ireland, there are approximately 20000 people with epilepsy and 30% of these will have regular seizures. Incidence is estimated to be 50 per 100,000 per year and the prevalence of active epilepsy in the UK is estimated to be 5–10 cases per 1000. Two-thirds of people with active epilepsy have their epilepsy controlled satisfactorily with anti-epileptic drugs (AEDs). Other approaches may include surgery. Optimal management improves health outcomes and can also help to minimise other, often detrimental, impacts on patient’s social life, education and employment.

How seizures affect the patient depends on which areas of the brain are affected by the epileptic activity. Seizures usually last between a few seconds and several minutes. After a seizure, the brain and body will usually return to normal. Some people only ever have seizures when they are awake. Other people only ever have seizures when they are asleep. Some people have a mixture of both.

There are a number of causes of epilepsy including:

- Genetic – approximately 20% of patients have a genetic cause
- Physical – following trauma e.g. head injury
- Metabolic – electrolyte disturbances
- Infective – encephalitis or meningitis
- Unknown – for around 60% of patients, there is no known cause.

Patients known to have epilepsy can be safely discharged in the community and referred to their GP following a seizure. By referring the patient to the GP, the patient is likely to receive more timely follow up, be less inconvenienced and have a better patient experience. NIAS crews will also avoid potentially long handover times and therefore improve availability for subsequent emergency calls.

Catchment area

This pathway is in place across Northern Ireland.

Inclusion Criteria

- Patient is known to have epilepsy
- The presentation and duration of the seizure is what the patient would normally experience
- The patient has fully recovered and has mental capacity
- The patient can be left in the care of a responsible person
- The patient has access to and is compliant with their regular prescribed medication
- The patients vital signs including BM, temperature and 12 lead ECG are within normal limits

Exclusion Criteria

- The following patients should be transported directly to the ED:
  - Patients who are actively fitting or who require paramedic intervention to resolve the seizure
  - Patients with an atypical seizure i.e. patients whereby the duration or presentation of the fit is different to what they would normally experience
• Patients who are status epilepticus – this is defined as patients who are having persistent and continual seizures lasting greater than 5 minutes or patients who are having repeated tonic clonic seizures occurring over a 30 minute period without recovery of consciousness between each seizure.

• Febrile convulsions
• Patients under 16 years of age
• Patients who have had a recent adjustment in their medications
• Patients with a history of recent head injury
• Patients who are pregnant OR are known to have pre-eclampsia
• Patients presenting with a fever OR who had felt unwell prior to the seizure
• Patients who are under the influence of alcohol or drugs
• Patients who are experiencing serial convulsions (3 or more in an hour) OR who have had an increased frequency of seizures
• First presentation seizures
• Patients who have sustained significant injury as a result of their seizure that requires further assessment.

**The paramedic should give consideration for any medication taken prior to their arrival e.g. buccal midazolam**

**NASMED guidance**

All patients, of all ages, who have had an ambulance response to a hypoglycaemic episode or a seizure should automatically be referred for follow up. The referral should be made to either the patient’s GP or other appropriate service such as diabetes or epilepsy specialist teams according to the local ambulance service agreed pathways. The service should then follow up the patient and address any issues of concern, which may include driving or operating machinery. The patient should be informed of the referral, and even if the patient objects, the referral should still be made.

**Making the referral**

The patient’s own GP should be contacted “in hours”. For patients who present out of hours, the out of hours GP should be contacted. They will record the contact on a system known as Adastra which the patient’s own GP can then access and view. Both in and out of hours GP contact details can be obtained from EAC. Ring 02890 404021.

**Safety netting**

The patient should be given advice to ring 999 should they have another seizure or their condition deteriorates.

The patient should be left in the care of a responsible person.

A copy of the patient report form should be left with the patient.

**Epilepsy Action Helpline**

This is a free and confidential service provided by Epilepsy Action. The trained advisers can offer confidential, personal advice. The helpline is open from 8.30am to 5.30pm Monday to Friday.

Helpline Freephone 0808 800 5050, text 0753 741 0044, email helpline@epilepsy.org.uk, tweet @epilepsyadvice, www.epilepsy.org.uk

**Further information**

There is an estimated 124,500 people, who have been diagnosed with epilepsy, but in
whom the diagnosis is incorrect. It is therefore vital that a 12 lead ECG and a BM are recorded on all patients who have suffered a seizure.

**Epilepsy triggers**

Triggers are situations that can bring on a seizure in some people with epilepsy. Triggers can differ from person to person, but common triggers include:

- Tiredness and lack of sleep
- Stress
- Alcohol
- Noncompliance with medications
- Underlying infection
- Photosensitive epilepsy (affects only up to 5% of people with epilepsy)

**Patient History**

Patients with epilepsy may experience an Aura or prodrome before their seizure.

- **Aura** – part of the seizure that preceded other manifestations – odd sensations e.g déjà vu, strange smells, rising abdominal sensation, flashing lights
- **Prodrome** – precedes fit. May be a change in mood or behaviour noticed by the patient or others.

**Midazolam**

Midazolam is a benzodiazepine drug, which is now being administered by carers to treat convulsions as an alternative to rectal diazepam. Paramedics and Emergency Medical Technicians can administer a patient’s own prescribed midazolam provided they are competent to administer buccal medication and are familiar with midazolam’s indications, actions and side effects.

Due to the time taken to cannulate and administer intravenous diazepam and the time it takes for rectal diazepam to act, a second dose of midazolam is preferable.

**Descriptions of common seizure presentations**

**Generalised Seizures**

**Tonic Clonic seizures** - Loss of consciousness. The patient may pass urine or bite the side of the tongue or mouth. They may need to sleep or have severe headaches.

During the tonic phase, the muscles contract and the body stiffens. This is followed by the clonic phase which is uncontrollable jerking of the body. The patient may let out a cry as air is forced out of the lungs and the lips may go blue due to lack of oxygen. When the patient comes round they cannot remember anything. They will need time to recover which ranges from minutes to hours.

**Absence seizures** - This is a momentary lapse in awareness and is more common in children and teenagers. The patient may stop what they are doing, stare, blink or look vague for a few seconds before carrying on with what they were doing. It can go unnoticed and onlookers may think that the patient is just daydreaming

**Atonic seizures** (drop attacks) - Loss of muscle tone, spontaneous falls

**Myoclonic seizures** - Brief, forceful jerks affecting arms, legs, and sometimes the whole body
Focal seizures

The patient may remain alert or may not be aware of what is happening. Symptoms are varied and may include one or more of the following: twitching, numbness, sweating, dizziness, nausea, disturbances to hearing, vision, smell or taste, strong sense of déjà vu. The patient may display involuntary movements, including: plucking at clothes, smacking lips, swallowing repeatedly or wandering around. These seizures can often progress to other types of seizure.

Note: focal seizures vary widely and may include other symptoms not included in the examples above

### Common Epilepsy Medications

<table>
<thead>
<tr>
<th>Generic Name</th>
<th>Some Brand Names</th>
<th>Indications in Epilepsy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetazolamide; Acetazolamide modified release <em>(rarely prescribed)</em></td>
<td>Diamox, Diamox SR</td>
<td>Epilepsy.</td>
</tr>
<tr>
<td>Brivaracetam</td>
<td>Briviact</td>
<td>Adjunctive therapy in the treatment of partial-onset seizures with or without secondary generalisation in adult and adolescent patients from 16 years of age with epilepsy.</td>
</tr>
<tr>
<td>Carbamazepine</td>
<td>Tegretol, Carbagen SR; Tegretol Prolonged Release</td>
<td>Focal and secondary generalised tonic-clonic seizures, primary generalised tonic-clonic seizures.</td>
</tr>
<tr>
<td>Clobazam</td>
<td>Frisium; Tapclob</td>
<td>Adjunct in epilepsy.</td>
</tr>
<tr>
<td>Clonazepam</td>
<td>N/A</td>
<td>All forms of epilepsy.</td>
</tr>
<tr>
<td>Eslicarbazepine acetate</td>
<td>Zebinix</td>
<td>Adjunctive treatment in adults with focal seizures with or without secondary generalisation.</td>
</tr>
<tr>
<td>Ethosuximide <em>(rarely prescribed)</em></td>
<td>Emeside; Zarontin</td>
<td>First-line treatment option for absence seizures.</td>
</tr>
<tr>
<td>Gabapentin</td>
<td>Neurontin</td>
<td>Focal seizures.</td>
</tr>
<tr>
<td>Lacosamide</td>
<td>Vimpat</td>
<td>Focal seizures.</td>
</tr>
<tr>
<td>Lamotrigine</td>
<td>Lamictal</td>
<td>Focal seizures and generalised seizures including tonic-clonic seizures.</td>
</tr>
<tr>
<td>Levetiracetam</td>
<td>Keppra; Desitrend</td>
<td>Focal seizures with or without secondary generalisation and for adjunctive therapy of myoclonic seizures in patients with juvenile myoclonic epilepsy and primary generalised tonic-clonic seizures.</td>
</tr>
<tr>
<td>Oxcarbazepine</td>
<td>Trileptal</td>
<td>Focal and secondary generalised tonic-clonic seizures, primary generalised tonic-clonic seizures.</td>
</tr>
<tr>
<td>Perampanel</td>
<td>Fycompa</td>
<td>Partial onset seizures with or without secondary generalised seizures.</td>
</tr>
<tr>
<td>Phenobarbital (Phenobarbitone)</td>
<td>N/A</td>
<td>All forms of epilepsy except typical absence seizures.</td>
</tr>
<tr>
<td>Phenytoin</td>
<td>Epanutin</td>
<td>Tonic-clonic seizures; focal seizures.</td>
</tr>
<tr>
<td>Pregabalin</td>
<td>Lyrica</td>
<td>Focal seizures.</td>
</tr>
<tr>
<td>Primidone</td>
<td>N/A</td>
<td>All forms of epilepsy except typical absence seizures.</td>
</tr>
<tr>
<td>Generic Name</td>
<td>Some Brand Names</td>
<td>Indications in Epilepsy</td>
</tr>
<tr>
<td>------------------------------</td>
<td>--------------------------------------------</td>
<td>----------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Rufinamide</td>
<td>Inovelon</td>
<td>It is restricted for use when alternative traditional antiepileptic drugs are unsatisfactory.</td>
</tr>
<tr>
<td>Sodium valproate; Sodium valproate modified release</td>
<td>Epilim, Epilim Chrono, Epilim Chronosphere, Episenta, Epival</td>
<td>All forms of epilepsy.</td>
</tr>
<tr>
<td>Valproic acid</td>
<td>Convulex; Depakote</td>
<td>All forms of epilepsy.</td>
</tr>
<tr>
<td>Tiagabine (rarely prescribed)</td>
<td>Gabitril</td>
<td>Used as an adjunctive treatment for focal seizures with or without secondary generalisation that are not satisfactorily controlled by other anti-epileptics</td>
</tr>
<tr>
<td>Topiramate</td>
<td>Topamax</td>
<td>Can be given alone or as adjunctive treatment in generalised tonic-clonic seizures with or without secondary generalisation.</td>
</tr>
<tr>
<td>Vigabatrin (rarely prescribed)</td>
<td>Sabril</td>
<td>Can be prescribed in combination with other anti-epileptic treatment for focal epilepsy with or without secondary generalisation.</td>
</tr>
<tr>
<td>Zonisamide</td>
<td>Zonegran</td>
<td>Can be used alone for the treatment of focal seizures with or without secondary generalisation in adults with newly diagnosed epilepsy, and as an adjunctive treatment for refractory focal seizures with or without secondary generalisation in adults and children aged 6 and above.</td>
</tr>
</tbody>
</table>
# GP Out of Hours

<table>
<thead>
<tr>
<th>Region</th>
<th>Contact Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>North</td>
<td>(028) 2566 3500</td>
</tr>
<tr>
<td>West</td>
<td>(028) 7186 5195</td>
</tr>
<tr>
<td>South East</td>
<td></td>
</tr>
<tr>
<td>Downe</td>
<td>(028) 9260 2204</td>
</tr>
<tr>
<td>Lagan</td>
<td>(028) 9260 2204</td>
</tr>
<tr>
<td>NDA</td>
<td>(028) 9182 2344</td>
</tr>
<tr>
<td>Belfast</td>
<td></td>
</tr>
<tr>
<td>South and East</td>
<td>(028) 9079 6220</td>
</tr>
<tr>
<td>North and West</td>
<td>(028) 9074 4447</td>
</tr>
<tr>
<td>South</td>
<td>(028) 3839 9201</td>
</tr>
</tbody>
</table>
Out of Hours Palliative Care

NIAS
REFERRAL GUIDANCE
for Out of Hours Palliative Care.

IMPLEMENTATION DATE:
20/04/2015

SOURCE: Ciarán McKenna. Clinical Service Improvement Lead.
Paula Heneghan. Marie Curie Regional Manager

6th March 2015
The following patients do not meet the inclusion criteria:

- Children under the age of 18.
- Where it is unclear if the patient is receiving palliative care.
- Patients who are immunocompromised and presenting with signs of sepsis.
- Patients presenting with a query cauda equina syndrome (spinal cord compression).
- Patients who present outside the hours of operation.

The patient should be transported to hospital:

- If the nurse / OOH GP does not contact the paramedic within 20 mins
- If the nurse / OOH GP does not accept the referral
- If the required response time cannot be met

When the referral has been accepted, the crew should:

- Advise the patient / responsible person of the timeframe for the nurse / OOH GP arriving
- Advise patient of OOH number if they have a query about arrival time of the professional
- Advise the patient / responsible person to re-call 999 should their condition deteriorate or the team fail to arrive
- Complete the PRF and leave a copy of it with the patient.

Duty of Care
Once the healthcare professional (i.e. nurse or doctor) has accepted the referral they have accepted the duty of care for the patient.
Referral Guidance for Out of Hours Palliative Care

Increasingly, paramedics are attending patients with terminal or life limiting illness. Traditionally, our only option was to transport the patient to the Emergency Department (ED) even though many people with a terminal illness wish to remain at home in comfortable and familiar surroundings. Out of Hours nurses supported by the Out of Hours General Practitioners (GP) can make this possible by offering an enhanced palliative care service to patients out of hours.

Palliative care is the active holistic care of patients with advanced progressive illness. Examples of progressive illness include cancer, dementia or chronic obstructive pulmonary disease (COPD). Management of pain and other symptoms and provision of psychological, social and spiritual support is paramount. The goal of palliative care is achievement of the best quality of life for patients and their families.

Palliative care aims to:
- Affirm life and regard dying as a normal process.
- Provide relief from pain and other distressing symptoms.
- Integrate the psychological and spiritual aspects of patient care.
- Offer a support system to help patients live as actively as possible until death.
- Offer a support system to help the family cope during the patient’s illness and in their own bereavement.

Northern Ireland Ambulance Service Paramedics are now able to refer patients with known palliative care needs to a team of nurses via the Out of Hours GP / Nurse service. Referring appropriate patients to the nursing team will result in the patient receiving more timely treatment at home, being less inconvenienced and having a better patient experience. NIAS crews will also avoid potentially long handover times and therefore improve availability for subsequent emergency calls.

Catchment Area
This referral pathway will be available in all of the Belfast; Northern; Southern and South Eastern Trusts. In addition it will be available in the Northern Sector of the Western Trust. The Northern Sector of the Western Trust includes the following postcodes:
- BT47
- BT48
- BT49
- BT81
- BT82

Depending on the geographical location, this service may be provided by either a Community Nurse; District Nurse or Marie Curie Nurse.

Nursing team hours of operation

Belfast Trust: 7 days per week from 1800 – 0800hrs
Northern Trust: 7 days per week from 2200 – 0800hrs
Southern Trust: 7 days per week from 2200 – 0700hrs
South Eastern Trust: 7 days per week from 1800 – 0800hrs
Western Trust: 7 days per week from 2200 – 0800hrs

All services also offer full day / night cover on weekends and Bank holidays.
Inclusion Criteria
Paramedics may refer for palliative care at-home-assessment if:

• The patient is receiving palliative care and is known to the primary care team.
• The patient and / or family consent to remaining at home and being referred to the nursing team.
• There is clear written evidence on scene to suggest that the patient is receiving palliative care e.g. Nursing notes.

Exclusion Criteria

• Children under the age of 18 should be referred directly to the ED.
• Where it is unclear if the patient is receiving palliative care.
• Patients who are immunocompromised and presenting with signs of sepsis.
• Patients presenting with a query cauda equina syndrome (spinal cord compression) i.e. complaining of lumbar back pain with associated saddle anaesthesia. The patient may also complain of incontinence and / or gait disturbance.

The Palliative Care At Home service can:

• Access the out of hours GP
• Offer palliative care advice to paramedics on scene.
• Assist in caring for a patient who is actively dying.
• Assist with symptom management
• Give advice regarding Do Not Attempt Resuscitation notices (DNAR).
• Care for palliative patients who wish to remain at home.
• Care for palliative patients who do not require urgent medical treatment at hospital.
• Care for palliative patients whose presenting condition is considered to be related to the palliative condition.

Making the referral
For patients who meet the inclusion criteria, the attending paramedic should refer via the Out of Hours GP / Nurse service:

Belfast (South & East): 02890 565565
Belfast (North & West): 07900 053824
Western: 02871 865195
Southern: 02838 399201
South Eastern (North Down & Ards): 02891 822344
South Eastern (Down & Lisburn): 02895 988000
Northern: 02825 663505

For in hours Palliative Care please refer to the Community / District Nursing Pathway.

An Out of Hours call handler will speak with the attending paramedic and take the patient’s details. The call handler will then pass this information to the triage doctor or nurse. The doctor or nurse will contact the paramedic by phone within 20 minutes and advise if the patient is suitable for referral or if they should be taken to the ED. Once the referral has been accepted, the nurse or out of hours doctor will aim to arrive with the patient within mutually agreed timeframe or a maximum of 2 hours.

Once the healthcare professional (i.e. nurse or OOH doctor) has accepted the referral they have accepted the duty of
care for the patient.

Once the referral has been accepted, the attending paramedic can make the decision to leave the patient and clear from the call. Clinical judgement should be used on a case by case basis as it may be appropriate for the crew to remain on scene until the nurse arrives in order to provide supportive treatment to the patient and reassurance to the family for example for patients who are actively dying.

The crew should inform EAC that the Alternative Care Pathway – Palliative Care has been used before clearing.

**Duty of Care**

Once the referral has been verbally accepted and the triage doctor or nurse has confirmed that the patient is suitable for home assessment / treatment, the nurse / GP has accepted the duty of care for that patient.

**Advice to patient / family**

The patient / family should be advised of the estimated time of arrival of the team as per the information given by the triage nurse to the paramedic.

The patient / responsible person should be given a contact number for the nurse should they have a query about their arrival time.

The patient / family should be advised to call 999 should the nurse fail to arrive or the patient’s condition deteriorates prior to the nurse arriving.

Agreement to accept the patient by the referrer and advice given to the patient should be documented on the patient report form (PRF).

A copy of the patient report form should be left with the patient for the nurse to view on their arrival.
This protocol replaces the ST Elevation Myocardial Infarction Pathway v3 (2013) and incorporates the latest developments around the regional provision of primary percutaneous coronary intervention (pPCI), the 2013 JRCALC Clinical Guidelines and NICE Guidance on the management of ST elevation myocardial infarction.
What’s new in cardiac reperfusion?

Until a few years ago, the only option for restoring blood flow in an acutely blocked coronary artery was to administer thrombolytic drugs such as Streptokinase, Reteplase, or Tenecteplase. This was traditionally undertaken in hospitals, but the introduction of the Mobile Coronary Care Units in Northern Ireland led the way in offering this treatment in the pre-hospital setting, thereby reducing the “call to needle time” and improving outcomes. Thrombolysis was subsequently provided by paramedic ambulances in most of the UK and has been available to NIAS paramedics for several years, allowing thrombolysis to be given even earlier following a myocardial infarction.

However, in most areas of the UK, intravenous thrombolysis has been superseded by Primary Percutaneous Coronary Intervention (pPCI), as the evidence suggests this technique has significant advantages and carries a lower risk than thrombolysis, and is suitable for many patients in whom thrombolysis is contraindicated or has not been successful.

A 24/7 pPCI was finally established for all of Northern Ireland in 2014 following a previous successful pilot for patients in the Belfast Trust. All patients in Northern Ireland presenting with an acute ST-elevation myocardial infarction are transferred directly to one of two pPCI centres at either the Royal Victoria Hospital or Altnagelvin Area Hospital. The process is much less complicated that the previous thrombolysis service and involves:

- Making a clinical diagnosis and delivering initial treatment
- Undertaking and reviewing a 12-lead ECG
- Transmitting any ECG showing a possible STEMI to the receiving CCU
- Transferring all STEMI patients direct to the receiving cardiac unit, bypassing local Coronary Care Units.

All STEMI-positive ECGs (including those with evidence of a posterior MI) are transmitted to either the RVH or Altnagelvin depending on the location of the call. The hospital staff will either accept the patient for immediate transfer directly to their cath lab, or advise that the patient is not appropriate for pPCI and should instead be brought to the nearest Emergency Department.

Although there are many quoted timescales for how quickly a patient should undergo pPCI, it must be recognised in any patient suffering a myocardial infarction, time is critical and minimising any delay is paramount.

Crews may also receive requests from Emergency Departments or even general hospital wards throughout Northern Ireland to transfer a patient who has been diagnosed with a STEMI directly to one or other cath lab. These transfers must also be regarded as time critical, and crews must present at the requesting unit with a trolley, portable oxygen and monitor / defibrillator.

So what is different in the pre-hospital phase?

Crews will continue to respond to chest pain calls as emergencies, and following a clinical diagnosis of a possible cardiac cause must undertake a 12-lead ECG to aid diagnosis.

Initial treatment with aspirin, nitrates, opiates and oxygen (if required) is given in line with JRCALC and BTS Oxygen guidelines. A 3-lead ECG alone is not sufficient to diagnose or exclude myocardial infarction.

If ECG changes consistent with a STEMI are present, the ECG must only be faxed to either the RVH or Altnagelvin based on the physical location of the patient at the time. There is no need to involve any other local CCU at this stage.
If accepted for pPCI, the crew will continue pre-hospital treatment by:

- Ensuring patient has secure IV access (minimum 20G pink cannula).
- Advising control of emergency transfer to the appropriate cath lab.
- Undertaking a blue-light transfer direct to the receiving hospital’s cath lab. The patient must remain on continuous monitoring.
- Transferring the patient by trolley to the cath lab with continuous monitoring.
- N.B. Clopidogrel is not to be administered to any patient as the Regional Cardiology Network has determined that patients will instead receive Ticagrelor on arrival at the cath lab.
- Do not give any further doses of nitrate (GTN) if accepted for pPCI.
- Always retain a copy of any 12-lead ECGs to return with your copy of the PRF; these must be labelled with the patient’s details and NIAS incident number.

Who should have an ECG faxed to the cath lab?

The 2013 JRCALC Clinical Guidelines contain updated advice on who should be referred for possible primary PCI. These were reviewed in conjunction with the Regional Cardiology Network in attended by all of the local Hospital Trusts, and it has been agreed that NIAS crews must transmit an ECG for any patient who:

- Has symptoms consistent with an acute myocardial infarction and
- Is less than 12 hours elapsed from onset of maximum pain and
- Has a 12-lead ECG with:
  
  either
  - ST segment elevation of 1mm or more in at least two limb leads
  or
  - ST segment elevation of 2mm or more in any two adjacent chest leads
  or
  - Horizontal or downward sloping ST depression of at least 2mm in leads V1-V3

The last of these criteria refers to the changes suggestive of a posterior myocardial infarction, and were added to the list of local criteria in 2015.

While JRCALC refers to patients with left bundle branch block (LBBB) and symptoms of acute coronary symptom being transferred to a cath lab, we have been advised by the Regional Cardiology Network that patients with ECGs which show Left Bundle Branch Block will not be accepted immediately for direct access to primary PCI at this time, and should therefore be brought to the nearest Emergency Department for further assessment.

There is no need to refer a patient to the cath lab or transmit the ECG tracing if their ECG does not show evidence of the ST changes described above.

What about posterior ECG traces?

A posterior wall myocardial infarction occurs when posterior myocardial tissue usually supplied by the posterior descending artery (a branch of the right coronary artery in 80% of individuals), acutely loses blood supply due to thrombosis in that vessel. Posterior infarcts rarely occur in isolation and frequently coincides with an inferior wall myocardial infarction due to the shared blood supply. Posterior myocardial infarction may be suspected where the 12 lead ECG displays ST segment depression and tall R waves in V1-V3.
At present, the Northern Ireland Regional Cardiology Network has stated that patients will be accepted for primary PCI if they are presenting with symptoms consistent with a myocardial infarction, and have “horizontal or downward sloping ST depression of at least 2mm in leads V1-V3”, i.e. they are not specifically requesting that NIAS crews perform a further ECG with posterior leads.

However, it is good practice to obtain a posterior view of the heart. The ST depression occurs since these ECG leads will see the MI backwards (since the leads are placed anteriorly, but the myocardial injury is posterior). The posterior view is simple and should not take more than a minute or so.

There are a number of methods for obtaining a view of the posterior wall of the myocardium involving removal of one or more precordial leads and re-siting them below the left scapula. However, the one described is one of the simplest.

To acquire a posterior 12 lead ECG:

- Remove the V5 and V6 leads (these now become V7 and V8)
- Place the V7 & V8 lead posteriorly below the left scapula as shown below, following the same horizontal plane as V5 & V6
- Acquire another 12-lead ECG as normal. Print off a hard copy of this ECG annotating ‘posterior ECG’ at the top. Cross out V5 and V6 and re-label them ‘V7 & V8’.

If there is ST elevation in both V7 & V8 then this provides ECG confirmation of the presence of a posterior myocardial infarction.

In the presence of cardiac chest pain/symptoms highly suggestive of MI, this patient must continue to be treated using the same guidelines as any other STEMI patient.

If the posterior view ECG is faxed to a cath lab then it must be made clear during the subsequent phone call and on the PRF that it contains V7 and V8 views as this will not be annotated on the electronic copy transmitted by the monitor unit.

What about Left Bundle Branch Block?

JRCALC (2013) recommends that patients who present with symptoms suggestive of LBBB and have other features of Acute Coronary Syndrome should be referred for reperfusion. However, the Regional Cardiology Network for Northern Ireland have indicated that they will not accept patients for pPCI on the basis of LBBB, and that such patients should instead be transferred to the nearest appropriate ED as an emergency.
How do I decide which pPCI centre to contact / transfer to?

The provision of two pPCI centres on a 24/7 basis means that all the population of Northern Ireland should be able to reach one or other lab with a journey time of less than 90 minutes, but it is imperative that crews engage with the nearest centre on every occasion.

To inform this decision, a list of postcodes has been developed which indicates those areas from which the patient should be delivered to the relevant hospital. This takes into account drive times to the two cath labs, NIAS operational demands and the capacity of the two receiving sites. The postcode to be used is that indicated by the call location details on the MDT screen rather than the patient’s home address.

<table>
<thead>
<tr>
<th>WESTERN PCI SECTOR BT Postcodes for referral to ALTNAGELVIN cath lab</th>
<th>EASTERN PCI SECTOR BT Postcodes for referral to BELFAST cath lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>BT1 to 45</td>
<td>BT1 to 45</td>
</tr>
<tr>
<td>BT46 to 52</td>
<td>BT53,54*</td>
</tr>
<tr>
<td>BT55 to 57</td>
<td>BT58 to 71</td>
</tr>
<tr>
<td>BT74 to 79</td>
<td>BT80</td>
</tr>
<tr>
<td>BT81 to 94</td>
<td></td>
</tr>
</tbody>
</table>

This same postcode list has been provided to the cath labs who will only accept patients from their designated areas. *However, if patients are being transferred by air e.g. from Rathlin BT54 postcodes, offshore locations or other areas, then the destination may depend on flight safety and other operational factors which will be determined by the aircraft pilot and communicated to the receiving cath lab.

It is appreciated that this may mean longer journey times for crews dealing with patients suffering an acute myocardial infarction than in the past when they would have been brought to a local Emergency Department, but the available evidence supports the approach of rapid transfer for pPCI rather than intravenous thrombolysis

This process is summarised in the flowchart over page.
Pre-Hospital Management of Possible STEMI in the Context of pPCI

Chest pain of possible cardiac origin

Initial treatment and 12-lead ECG undertaken

ECG meets ST changes criteria for transmission

Transmit ECG to RVH or Altnagelvin CCU depending on location

CCU decides if appropriate for pPCI

Patient accepted for pPCI

Treatment completed and emergency transfer to cath lab at RVH or Altnagelvin

Patient not accepted for pPCI

Complete treatment and transfer to nearest ED as emergency

ECG does not meet criteria for transmission

Further treatment and transfer to nearest ED as emergency
What happens in the cath lab?

On receiving a 12-lead ECG from a NIAS crew, the CCU staff can assess whether cardiac catheterisation is appropriate and can prepare the lab to receive the patient. Crews will normally deliver the patient directly to the cath lab, bypassing the Emergency Department to speed the process. If this involves a short journey time and the crew are likely to arrive before the cath lab is ready, the CCU staff will advise where to bring the patient.

During cardiac catheterisation, a small guidewire is inserted into the patient’s radial or femoral artery and passed towards the heart from where x-ray opaque dye is injected into the coronary arteries. By viewing real time x-ray images, any blockage in the coronary arteries is identified by the cath lab team. A small wire grid, or “stent” is then passed through the blocked area and a balloon is inflated inside the stent to expand it to the required size, stretching the blockage to improve the flow of blood. Several blockages may be treated during the same procedure.

Patients from outside the cath lab hospital’s normal catchment area will usually be transferred back to the Coronary Care Unit of their local hospital several hours after their procedure as long as their condition has stabilised. When collecting these patients from the cath lab, the crew must always bring a trolley and monitor / defibrillator to the ward.

**Remember** – early effective reperfusion not only saves lives, but also reduces the damage to a heart-attack survivor’s heart muscle, reducing the risk of longer term heart failure and disability.

The aim is to ensure that every patient with a STEMI is at the balloon inflation stage within 120 minutes from the time that the cath lab has agreed to accept them, but the sooner the better. Everyone involved in the call, from the NIAS call-takers and dispatchers through the responding RRV staff and A&E crews to the hospital CCU staff and cath lab team, has their part to play in making sure that the patient receives the definitive treatment and care as quickly as possible.

What about cardiac arrest patients?

Any patients who have been successfully resuscitated following a cardiac arrest that is possibly due to myocardial ischaemia must have a 12-lead ECG performed. If the ECG (whether taken before or after the arrest) shows evidence of a STEMI then the ECG must be transmitted and the patient considered for pPCI as per the above protocol.

If there is no return of spontaneous circulation then normal procedures for cardiac arrest management are followed by the crew with full ALS protocols being delivered and either concluded on scene, or the patient being transferred to the nearest Emergency Department with resuscitation ongoing. The Regional Cardiology Network have indicated that they will not accept patients directly for pPCI if they are still in cardiac arrest and resuscitation is ongoing.

Patients with ROSC but no evidence of STEMI must also be brought to the nearest appropriate Emergency Department.

What if my patient is not accepted for pPCI?

If a patient does not have evidence of a STEMI and no ECG is transmitted, or following transmission of an ECG you are advised that the patient is not accepted for pPCI, the crew must complete whatever treatment is required on scene and then bring the patient to the nearest appropriate Emergency Department based on the location of the call. In such cases there is no need to bring such patients directly to the RVH or Altnagelvin as their care can be provided in any hospital with a Coronary Care Unit.
Bringing a non-pPCI patient direct to either the RVH or Altnagelvin and bypassing other local hospitals en route may delay their definitive care as well as placing extra pressure on services at the RVH or Altnagelvin, ultimately delaying other patients’ timely care as well.

It is well understood that some patients may have little or no changes on an initial 12-lead ECG, but can subsequently develop further progressive changes in their ECG which might change the decision on destination. If at any stage a non-pPCI patient is being transported to an ED and the patient develops evidence of acute STEMI, the crew must immediately contact the cath lab again to review the destination decision, transmitting a new ECG as required.

**Completing the PRF**

The current version of the NIAS patient report form includes a section specifically detailing decisions around patients presenting with a STEMI. The 2015 version of the PRF does not include the criteria for posterior MI referral, but this will be included on future updates of the form, whether in printed or electronic form.

If dealing with a patient with a suspected posterior MI, staff should continue complete this box as normal, but document all ECG changes consistent with an infarction in the “Details” section of the PRF.
Safeguarding

NIAS SAFEGUARDING REFERRAL PROCEDURE.

IMPLEMENTATION DATE: 01/11/2016

SOURCE: Dr David McManus. Medical Director.
NIAS Safeguarding Referral Procedure

Inclusion criteria:
A safeguarding referral should be made where any of the following have been identified / suspected regardless of whether the patient has been transported to hospital or not:

- There are concerns that a patient has suffered, or is likely to suffer significant harm.
- There are concerns in relation to patients who are Looked After by a health and social care Trust or their carers including children in foster care and residents of nursing / residential homes.
- There is suspected or confirmed abuse of a patient.*
- There are concerns about the safety of an adult / child.
- Where there is a serious and imminent risk to a child following family breakdown both in the community, foster care or kinship placements.
- Where there is a need for authorised professionals to make an enquiry to the Child Protection Register.
- All cases of sudden unexpected deaths of infant; children and adolescents (SUDICA).
- Children who are intoxicated through alcohol / drugs.
- Children in the care of adults who are intoxicated through alcohol / drugs.
- Where informal care arrangements have broken down for older patients or patients with physical / learning disabilities and admission to a nursing / residential home is required.

*Examples of abuse include: Psychological abuse; Financial or material abuse; Modern slavery; Discriminatory abuse; Organisational abuse; Neglect and acts of omission; Domestic abuse; Sexual Abuse including Child Sexual Exploitation

Making the referral:
NIAS staff should ring EAC on 02890 404021 and request the social work team number for the location they are in. NIAS staff will then contact the social work team and in addition to providing information about their concerns will also need to provide:

- Patient name
- Date of birth
- Address
- Incident number
- Crew name
- Contact number

- School / College details (children only
- Details of care facilities e.g. name of nursing home / residential home or domiciliary care agency
- Reason for referral – brief description of your concerns / suspicions?

In addition to making a referral, all safeguarding concerns MUST also be reported via an Untoward Incident Report (UIR)

Duty Of Care
Once the social work service has verbally accepted the referral they, i.e. the Trust social work team have accepted the duty of care for that patient. The social work team will then initiate an investigation / follow up assessment.

Where a patient has remained at home, the patient should be given advice to ring 999 should their condition deteriorate.

Where a patient is transported to hospital, the receiving nurse should be made aware of your safeguarding concerns. A safeguarding referral MUST still be made by NIAS.

The patient report form should have clear documentation that a safeguarding referral was made and the reason for the referral.

Imminent Risk & Place of Safety
Where there is an imminent risk to the patient, the PSNI MUST be called. Patients may also be transported to the ED purely as a place of safety even where there is no clinical need. In these circumstances, the receiving nurse should be fully informed as to the reason the patient was transported to the ED. A safeguarding referral MUST also be made and a UIR completed.
NIAS Safeguarding Referral Procedure effective from 1/11/2016

Safeguarding is everyone’s responsibility and applies to both adults and children. NIAS may often be the first agency to become aware of safeguarding risks. It is not the role of NIAS staff to investigate concerns; however it is the role of all NIAS staff to be vigilant about safeguarding issues and refer patients where concerns are identified.

No one in NIAS should assume that someone else will pass on information which they think may be critical to the safety and wellbeing of a patient. Where NIAS staff have concerns, a safeguarding referral should be made. This is regardless of whether the patient has been transported to hospital or remained at scene.

Safeguarding referrals will be managed by the social work service. They provide services for:

- Children and young people.*
- Older people.
- People with mental health problems.
- People with learning difficulties.
- People with physical disabilities.
- Families and carers of all these groups.
- The service is also responsible for emergency homelessness for the Northern Ireland Housing Executive (NIHE) and emergency financial issues for the Social Security Agency outside normal working hours.

*Children and young people are defined as those under 18 years of age

Inclusion Criteria

A safeguarding referral should be made where any of the following have been identified / suspected regardless of whether the patient has been transported to hospital or not:

- There are concerns that a patient has suffered, or is likely to suffer significant harm.
- There are concerns in relation to patients who are Looked After by a health and social care Trust or their carers including children in foster care and residents of nursing / residential homes.
- There is suspected or confirmed abuse of a patient.◊
- There are concerns about the safety of an adult / child.
- Where there is a serious and imminent risk to a child following family breakdown both in the community, foster care or kinship placements.
- Where there is a need for authorised professionals to make an enquiry to the Child Protection Register.
- All cases of sudden unexpected deaths of infant; children and adolescents (SUDICA).
- Children who are intoxicated through alcohol / drugs.
- Children in the care of adults who are intoxicated through alcohol / drugs.
- Where informal care arrangements have broken down for older patients or patients with physical / learning disabilities and admission to a nursing / residential home is required.

◊Examples of abuse include: Psychological abuse; Financial or material abuse; Modern slavery; Discriminatory abuse; Organisational abuse; Neglect and acts of omission; Domestic abuse; Sexual abuse including child sexual exploitation

Making the referral

The safeguarding referral pathway is available 24 / 7 across Northern Ireland. To make the referral, NIAS staff should ring EAC on 02890 404021 and request the social work team number for the location they are in.

NB – The Regional Emergency Social Work Service (RESWS) manage all calls out of hours including weekends and bank holidays.
NIAS staff will then contact the social work team and in addition to providing information about their concerns will also need to provide:

- Patient name
- Date of birth
- Address
- Incident number
- Crew name
- Contact number
- Next of kin details
- School / College details (children only)
- Details of care facilities e.g. name of nursing home / residential home or domiciliary care agency
- Reason for referral – brief description of your concerns / suspicions?

A safeguarding referral **MUST** be made without delay even where some of the above information is not known.

The team will advise staff of their planned actions e.g. immediate home visit or follow up at a later date.

In addition to making a referral, all safeguarding concerns **MUST** also be reported via an Untoward Incident Report (UIR). The UIR should detail your concerns and any immediate action taken. On receipt of the UIR, the Trust risk manager will contact the safeguarding team to ensure that the appropriate action has been taken.

**Imminent Risk and Place of Safety**

Where there is an imminent risk to the patient, the PSNI **MUST** be called. Patients may also be transported to the ED purely as a place of safety even where there is no clinical need. In these circumstances, the receiving nurse should be fully informed as to the reason the patient was transported to the ED. A safeguarding referral **MUST** also be made and a UIR completed.

**Duty Of Care**

Once the social work service has verbally accepted the referral they, i.e. the Trust social work team have accepted the duty of care for that patient. The social work team will then initiate an investigation / follow up assessment.

Where a patient has remained at home, the patient should be given advice to ring 999 should their condition deteriorate.

Where a patient is transported to hospital, the receiving nurse should be made aware of your safeguarding concerns. A safeguarding referral **MUST** still be made by NIAS.

The patient report form should have clear documentation that a safeguarding referral was made and the reason for the referral.

**Appendix A – contact details**

<table>
<thead>
<tr>
<th>Trust</th>
<th>Children’s Gateway Team Mon – Fri 0900-1700</th>
<th>Adults Mon – Fri 0900-1700</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belfast HSCT</td>
<td>02890 507000</td>
<td>02895 041744</td>
</tr>
<tr>
<td>South East HSCT</td>
<td>03001 000300</td>
<td>02892 501227</td>
</tr>
<tr>
<td>Northern HSCT</td>
<td>03001 234333</td>
<td>02825 635512</td>
</tr>
<tr>
<td>Southern HSCT</td>
<td>08007837745</td>
<td>02837 412015 / 02837 412354</td>
</tr>
<tr>
<td>Western HSCT</td>
<td>02871 314090</td>
<td>02871 611366</td>
</tr>
<tr>
<td>Regional Emergency Social Work Service (RESWS) available 5pm to 9am weekdays, 24 hours at weekends and bank holidays. Telephone: 02895 049999</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
PILOT THROMBECTOMY SERVICE FOR PATIENTS WITH ACUTE STROKE

The Royal Victoria Hospital is piloting a new approach to the treatment of patients who have suffered an acute stroke which involves the physical removal of clots from the cerebral arteries in a procedure similar to the current PCI for cardiac patients with STEMI. This new service is currently only available Monday-Friday between the hours of 0800 and 1730.

Thrombectomy is only suitable for a very small number of patients who require initial assessment by their local stroke team (including a CT scan) prior to referral to the hub at the RVH. This means that some patients who are brought to peripheral hospitals and are confirmed as eligible for thrombectomy may require an emergency transfer to the RVH, but from a NIAS perspective the referral of patients with a potential stroke to the nearest hospital offering a 24/7 stroke service remains.

Initial response by crews:

It is important to stress that both stroke lysis and thrombectomy are time-critical procedures even though the window of opportunity for thrombectomy is longer than that for the current thrombolysis approach. All of the trusts have now agreed on a revised procedure for pre-alerting for patients with signs and symptoms of an acute stroke.

- Between the hours of 0800 and 1730 (Monday-Friday only), patients who have developed symptoms of acute CVA within the past twelve hours, and who are FAST-positive, must have a pre-alert call placed to the receiving Emergency Department. These patients must still be brought to the nearest hospital offering a 24/7 stroke service for initial assessment.

- At all other times, all patients who present with symptoms of an acute CVA within the previous four and a half hours, and who are FAST-positive, must continue to have a pre-alert call placed to the Emergency Department of the receiving emergency department. These patients must be brought to the nearest hospital offering a 24/7 stroke service.

- Always advise the standby recipient that the call is for a patient with a suspected acute stroke.

- If possible, pass on the personal details (i.e. name, date of birth, address) of the patient when making the standby call, allowing the stroke team to review the patient’s medical records prior to arrival. A blood pressure reading, blood glucose reading, and health and care number for the patient (noted as the H&C number on any health service documentation relating to the patient) are of particular benefit if available.

Emergency transfers to the RVH for thrombectomy

Following assessment at a peripheral hospital, a patient may be deemed as suitable for transfer to the RVH for emergency thrombectomy. Ambulance crews can not refer patients directly for thrombectomy,
but may receive requests to transfer these patients as an emergency directly to the RVH Level 3 CT suite, where the procedure will be performed.

- Hospital teams have been advised that when requesting such a transfer they must contact NIAS via 999 and make it clear that an immediate time-critical blue light transfer to the RVH is required.

- Such patients must be allocated an immediate Cat A priority and transferred as an emergency journey in an A&E vehicle.

- When arriving to collect the patient from the dispatching ward, the ambulance crew must bring their trolley, monitor and portable oxygen to the ward.

- The patient will be accompanied by a nurse or doctor from the dispatching hospital who will continue any treatment that they have already begun. This may include the ongoing infusion of thrombolytic drugs and the hospital clinician will be responsible for the patient care during the journey in this respect; however all possible assistance will be given by the accompanying ambulance crew.

- The RVH have requested that the CT suite be contacted approximately five minutes before arrival at the RVH and this should be via the direct dial numbers 028 9063 6707 or 028 9063 6708. This contact should be made by the accompanying clinician but they may request the assistance of the ambulance crew, depending on the clinical condition of the patient.

- On arrival at the RVH the crew will transfer the patient via trolley to the Level 3 CT suite without delay. Monitoring must be continued during this phase and until the patient is swapped over to the hospital monitors. The accompanying clinician will provide the handover to the receiving staff at the RVH.

NIAS may also receive non-emergency calls to repatriate patients from the RVH to the referring Trust and these journeys will normally take place 24 to 48 hours after the thrombectomy procedure. NIAS will be contacted via the RPCC Desk as soon as this transfer is planned and this journey may be undertaken by Intermediate Care Vehicles (with oxygen and AED available) as these patients will have been assessed by the hospital team as clinically stable prior to repatriation.

Yours sincerely,

Dr Nigel Ruddell
ASSISTANT MEDICAL DIRECTOR
Falls Referral Pathway

NIAS
REFERRAL GUIDANCE
for Patients who have fallen.

IMPLEMENTATION DATE:
01/06/2015

SOURCE: Ciarán McKenna. Clinical Service Improvement Lead.
Dr Nigel Ruddell. Assistant Medical Director.

Version 3: 01 November 2016
Referral Guidance for Patients who have Fallen

NIAS paramedic response to 999 call

Referral hours of operation: The referral pathway is in place 24/7 in the Northern, Southern, South Eastern and Western Trusts.

The patient must meet the following criteria to be suitable for a referral to the falls team:

- The patient has fallen
- The patient is over 65 years of age
- The patient is capable of remaining at home
- The patient consents to a referral

Patients who present with any of the following should be transported to the Emergency Department:

- FAST positive
- Evidence of significant injury e.g. fracture, wound requiring formal closure
- Evidence of alcohol intoxication
- The patient is pyrexic or showing signs of hypothermia
- Reduced GCS
- Loss of consciousness after the fall
- The patient is currently being treated with anticoagulants
- Vomiting post fall
- Loss of function / sensation of limbs
- Reduced mobility compared with their normal mobility
- Patients who refuse to consent for referral to a falls team.
- Patients who have been on the floor for >4 hours

For patients who meet the inclusion criteria, the crew should ring EAC on 02890 404021 and provide the EMD / RPCC call taker with the following information:

- Patient name
- Date of birth
- Patient phone number
- Address including postcode
- GP name and address
- Next of kin details
- NIAS incident number
- PRF number
- Responses to falls checklist questions

The EMD / RPCC call taker will complete an online form and email it to the relevant falls team.

When the referral has been made, the crew should:

Advise the patient / family that a referral has been made to the falls team.
Advise the patient / family to call 999 should the patient’s condition deteriorate.
Leave a copy of the patient report form with the patient and this should document that a referral has been made to the falls team.
Referral Guidance for Patients who have fallen effective from 1st June 2015

Falls are the most common 999 call to the ambulance service in Northern Ireland, with NIAS responding to approximately 20000 falls related calls per year. The National Institute for Health and Care Excellence (NICE) (2014) identify falls and fall-related injuries as a common and serious problem for older people. People aged 65 and older have the highest risk of falling, with 30% of people older than 65 and 50% of people older than 80 falling at least once a year. 50% of patients who fall will fall again within 12 months. The incidence of hip fractures in the UK is 86000 per year and 95% are as a result of a fall.

The British Geriatrics Society (2011) estimates that falls cost the NHS more than £2.3 billion per year. In addition to the financial cost, the human cost of falling includes distress; pain; injury; loss of confidence; loss of independence and functional mortality. In addition, the reduction in quality of life and physical activity can lead to social isolation and functional deterioration; which in turn can result in dependency and institutionalisation.

Research has shown that a multidisciplinary approach can prevent falls in older people and following a successful pilot in the Southern Trust, the referral pathway has been extended to include the Northern, South Eastern Trusts and Western Trusts.

By referring the patient to the falls team, the patient is likely to receive more appropriate assessment, be less inconvenienced, have a better patient experience and ultimately reduce their chance of a subsequent fall. NIAS crews will also avoid potentially long handover times and therefore improve availability for subsequent emergency calls.

Catchment area and hours of operation

The falls referral pathway is available in the Northern, Southern, South Eastern Trusts and Western Trusts.

Falls referrals can be made 24 / 7.

Services available

Patients who have fallen can benefit from the following services (Trust dependent):

- Telephone consultation from falls assessor
- Home visit by falls assessor
- Access to other health care professionals including physio / OT
- Medication review
- Strength and balance training
- Multidisciplinary team review at rapid access clinic

Inclusion Criteria

The patient should meet the following criteria to be suitable for a referral to the falls team:

- The patient has fallen
- The patient is over 65 years of age
- The patient is capable of remaining at home
- The patient consents to a referral

Exclusion Criteria

Patients who present with any of the following should be transported to the Emergency Department:

- FAST positive
• Evidence of significant injury e.g. fracture; wound requiring formal closure
• Evidence of alcohol intoxication
• The patient is pyrexic or showing signs of hypothermia
• Reduced GCS
• Loss of consciousness after the fall
• The patient is currently being treated with anticoagulants
• Vomiting post fall
• Loss of function / sensation of limbs
• Reduced mobility compared with their normal mobility
• Patients who have been on the floor >4 hours

Making the referral
Crews should make the telephone referral while they are with the patient.

For patients who meet the inclusion criteria, the crew should ring EAC on 02890 404021 and provide the EMD / RPCC call taker with the following information:

• Patient name
• Date of birth
• Patient phone number
• Address including postcode
• GP name and address
• Next of kin details
• NIAS incident number
• PRF number

The EMD / RPCC call taker will take the crew through the following falls check list to ensure that the patient is appropriate for referral:

1. Is there any evidence of the patient having sustained an injury that warrants hospital investigation and/or treatment?
2. Is there any evidence of an underlying acute medical problem which may have contributed to this fall e.g. acute stroke, arrhythmia, hypothermia or sepsis which may require immediate hospital investigation and/or treatment?
3. Is blood glucose within normal limits?
4. Is the patient taking warfarin or other anticoagulant medication e.g. apixaban, dabigitran rivaroxaban (this list is not exhaustive)?
5. How many falls has the patient had in the past 12 months?
6. Does the person take 4 or more different types of medication per day?
7. Does this person have any problems with their walking or balance?
8. Is this person UNABLE to rise from a chair of knee height WITHOUT using their hands for assistance?

The EMD / RPCC call taker will complete an online form and email it to the relevant falls team. The referral should be documented in the call notes and the call closed with the appropriate “Stop” code.
Advice to patient / family

The patient / family should be advised that an email referral has been made to the falls team.
The patient / family should be advised to call 999 should the patient’s condition deteriorate.
A copy of the patient report form should be left with the patient and this should document that a referral has been made to the falls team

Patients who refuse referral

Paramedics should document on the Patient Report Form any patient who declines a referral to the falls team. Consideration should be given for transporting these patients to hospital.

Further information

Causes of Falls

Causes of falls in older people are usually multifactorial but can include the following examples:

- Environmental hazards
- Gait and balance disorders or weakness
- Dizziness and vertigo
- Drop attack
- Confusion
- Postural hypotension
- Visual disorder
- Syncope
- Vasovagal
- Carotid sinus syndrome
- Arrhythmias
- Exertional dyspnoea
- TIA / Neurological
- Other specified causes including arthritis, acute illness, drugs, alcohol, pain, epilepsy and falling from bed
- Unknown

Patients who have fallen should have a full set of observations recorded including: sitting and standing blood pressure; BM; 12 lead ECG and temperature.

Risk Factors

- Alcohol excess
- History of falls
- Gait deficit and/or balance deficit
- Mobility impairment
- Visual impairment
- Cognitive impairment
- Urinary incontinence
- Home hazards - poor lighting, loose carpets
- Number of medications / polypharmacy
- Muscle weakness
Minor Injury Units

NIAS DESTINATION TRIAGE GUIDANCE for Minor Injury Units.

VERSION 2

UPDATED: 12/10/2015

SOURCE: DR N RUDDELL. ASSISTANT MEDICAL DIRECTOR
Ciarán McKenna. Clinical Service Improvement Lead.
**NIAS Destination Guidance for Minor Injury Units V2 revised Sept 2015**

**Ambulance Call**

1. **Call by GP** (following patient assessment) requesting ambulance transport to MIU

2. **Assess Patient**
   - **Not suitable for MIU**
     - History or physical examination suggests they are likely to:
       - Require active resuscitation
       - Require medical or medical specialty (e.g., cardiology) admission
       - Require surgical or other specialist assessment and/or intervention
       - Gynaecological or pregnancy related emergency
       - Require psychiatric assessment
       - Require emergency CT scanning
       - Traumatic musculoskeletal neck pain (whiplash)
   - **Take directly to nearest appropriate ED**

3. **Suitable for MIU**
   - **Minor Injuries**
     - Bruises, strains, sprains, soft tissue injuries and simple wounds to skin
       - No retained foreign body
       - No loss of circulation
       - No arterial bleeding or physiological abnormality
   - **Simple Burns and Scalds**
     - DO NOT involve a critical area (i.e., Airway/face/perineum/hands/feet)
     - Burn area < 10% (if partial thickness)
     - Burn area < 5% (if full thickness)
   - **Simple Fractures**
     - Fractures of short bones of the foot and toes and simple upper limb fractures
     - Not compound
     - Not associated with abnormal physiology
     - No evidence of disturbance of distal sensation or circulation
   - **Paediatric (over 5) Minor Injury**
     - Children who fit the general suitability criteria as above.
     (Remember—There is no specialist paediatric cover at a MIU)
   - **Minor Head Injury**
     - No loss of consciousness at any time
     - *Patient GCS MUST be 15/15*
     - No persistent vomiting
     - The patient is not on anti-coagulants
   - **Take to MIU unless contra-indicated**

**Assessment of patients who have consumed alcohol**

Patients who would be suitable for MIU by the above criteria but who have consumed a small amount of alcohol (i.e., Glasgow Coma Scale 14+, coherent and competent for assessment) may still be assessed at the MIU, but any who appear intoxicated or have a GCS of less than 14 must be brought instead to the nearest appropriate ED.

In all cases, the responding crew must contact the MIU by phone. The purpose of the call is to discuss the suitability of the patient for assessment/treatment at the unit.

<table>
<thead>
<tr>
<th>Minor Injury Unit</th>
<th>Telephone Number</th>
<th>Opening Times</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dungannon</td>
<td>028 8771 3103</td>
<td>Mon - Fri 0900-2100; Sat - Sun 1000-1800</td>
</tr>
<tr>
<td>Magherafelt</td>
<td>028 7936 6759</td>
<td>Mon - Fri 0900-1700</td>
</tr>
<tr>
<td>Downpatrick</td>
<td>028 4461 6064</td>
<td>Sat - Sun 0800-2100</td>
</tr>
<tr>
<td>Bangor</td>
<td>028 9147 5148</td>
<td>Mon - Fri 0900-1700</td>
</tr>
<tr>
<td>Ards</td>
<td>028 9151 0110</td>
<td>Mon - Fri 0900-1700</td>
</tr>
<tr>
<td>Omagh</td>
<td>028 8283 3169</td>
<td>24 / 7</td>
</tr>
</tbody>
</table>
Destination Triage Guidance for Northern Ireland Minor Injury Units (MIU’s) updated

12/10/2015

Following on from the success of the Omagh minor injury unit (MIU), a further 5 units are now in a position to clarify a range of clinical conditions which they are willing to accept from ambulance crews on the basis that such patients may be safely assessed and treated on site. This will avoid the need for unnecessary journeys to more distant Emergency Departments (ED).

By bringing an appropriate patient to a MIU rather than travelling to a formal ED, the patient is likely to receive more timely treatment and be less inconvenienced. NIAS crews will also avoid unnecessarily long journeys, improving availability for subsequent emergency calls.

MIU’s by their nature have no full-time medical, surgical, specialty or anaesthetic cover. They are not intended to provide the full range of emergency care, and are instead equipped to deal only with minor injuries and illness. This guidance is to determine what category of patient may be safely brought to a MIU and which patients will require direct transfer to formal ED’s.

General Practitioners, following an assessment of a patient, may request ambulance transport to a MIU. Crews should contact the GP to discuss the patient condition should they feel it is outside the scope of the MIU.

Attending crews should use the following guidance to assess if a patient is suitable for a MIU.

Considerations

Patients with complex social care needs or who have significant mobility problems may not be suitable for the MIU’s. Some of the units are not equipped to deal with these patients and therefore the unit should be contacted first to discuss the patient and their presenting complaint. Discussing these cases will lead to both transport to an appropriate facility and subsequently enables a safe patient discharge.

Opening Hours of the Units

<table>
<thead>
<tr>
<th>Minor Injury Unit</th>
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<td>Omagh</td>
<td>028 8283 3169</td>
<td>24 / 7</td>
</tr>
</tbody>
</table>

Patients NOT SUITABLE for Minor Injury Units

Patients must not be brought to a MIU if their history or physical examination suggests they are likely to:

- Require active resuscitation
- Require medical or medical specialty (e.g. cardiology) admission
- Require surgical or other specialist assessment and/or intervention
- Have a gynaecological or pregnancy-related emergency
- Require psychiatric assessment
- Have a risk of significant trauma
- Have a history of traumatic musculoskeletal neck pain (whiplash)
- Require CT scanning

Such patients must instead be brought directly to the nearest appropriate Emergency Department. Other more specific conditions should be considered in light of the advice below.
Patients SUITABLE for a Minor Injuries Unit

The following patients may be taken directly to a minor injury unit during the hours of operation. If there is any doubt about suitability then the MIU staff can be contacted directly for advice on the numbers given.

Minor Injuries:
Bruises, strains, sprains, soft tissue injuries and simple wounds to skin where there is no retained foreign body, no loss of circulation and no arterial bleeding or physiological abnormality may be appropriately managed at an MIU. Injuries with suspected tendon or nerve damage can undergo initial assessment at the MIU who will arrange follow-up by surgery or plastics if required.

Simple Burns and Scalds:
Burn injuries may be brought to the MIU if they:
• DO NOT involve a critical area (i.e. Airway / face / perineum / hands / feet)
• The area of burn is less than 10% of body area for partial thickness burns
• The area of the burn is less than 5% of body area if full thickness

Simple fractures:
• Fractures of short bones of the foot and toes, simple upper limb fractures (no dislocations requiring reduction), simple below-knee fractures of the lower limb.
A simple fracture is defined as one that is not compound, is not associated with abnormal physiology, and has no evidence of disturbance of distal sensation or circulation. Fractures or dislocations requiring reduction should be brought directly to a formal Emergency Department i.e. a fracture where there is an obvious deformity.

Minor Head Injury:
A minor head injury is defined as a head injury where there has been
• No loss of consciousness at any time
• No persistent vomiting
• No confusion
• No seizure activity
• No evidence of cervical spine injury
• No bony facial injury
• A GCS of 15, and
• The patient is not on any anti-coagulants
• The patient is not intoxicated by alcohol or drugs

Assessment of patients who have consumed alcohol
Patients who would be suitable for the MIU by the above criteria but who have consumed a small amount of alcohol (i.e. Glasgow Coma Scale 15, coherent and competent for assessment) may still be assessed at the MIU, but any who appear intoxicated or have a GCS of less than 15 must be brought instead to the nearest appropriate ED.

Paediatric cases
There is no specialist paediatric cover at any minor injury unit. However, children over the age of 5 who fit the general suitability criteria for attendance as above may still be brought to the minor injury unit.

In all cases, the responding crew must contact the MIU by phone. The purpose of the call is to discuss the suitability of the patient for assessment / treatment at the unit.
A&E transport not required / patient making own way

The NIAS appropriate referral / transport guideline provides the following advice to paramedics regarding patients who either do not require A&E transport or are able to make their own way to hospital / minor injury unit.

“Following assessment and treatment of a patient it may be apparent that attendance at hospital is not required and / or the patient is able to make their own way. Once the paramedic has established that no clinical intervention or further assessment / monitoring is required during transport, it is acceptable for paramedics to suggest alternative means of transport. Paramedics should not get involved in confrontation and if the patient has no other form of transport available, then the crew should transport by ambulance.

Where a patient is making their own way to ED or an appropriate care destination, they should ideally be left in the care of a responsible person. The patient report form should have clear documentation of patient assessment, diagnosis and referral pathway. Significant signs / symptoms should have been addressed and advice given in relation to what the patient should do should their condition deteriorate. This should be documented on the PRF and a copy of the PRF should be given to the patient.”
Belfast Acute Care at Home

NIAS
REFERRAL GUIDANCE
for Belfast Integrated Care Partnership Acute Care at Home Team.

IMPLEMENTATION DATE:
09/11/2015

SOURCE: Ciarán McKenna. Clinical Service Improvement Lead.
Dr Jan Ritchie. Consultant Geriatrician Belfast City Hospital
Dr Alan Stout. GP Holywood Arches

Version 3: Updated 06 June 2016
Duty of Care

Once the service has verbally accepted the referral and agreed to attend, they, i.e. the Belfast Acute Care at Home team have accepted the duty of care for that patient.

The following patients should be transported to ED:
- Patients who do not live within the Belfast Trust catchment area.
- Patients who present outside the hours of operation.
- Acutely unwell patients, likely to need immediate resuscitation or for those who would normally require a standby.
- Patients with suspected stroke or TIA (FAST positive).
- Patients with suspected heart attack, DVT, fracture or GI bleed.
- Patients on home non-invasive ventilation or patients with tracheostomies.
- Patients with traumatic injuries.

NIAS paramedic response to 999 call

The referral pathway is for patients who live within the Belfast Trust catchment area

Referral operates Monday – Friday 0900 – 1700hrs

Patient meets inclusion criteria:
- Patients must be aged > 75.
- Acute or intolerable deterioration in chronic conditions associated with for example, weight loss, exhaustion, weakness, acute confusion, slowness and low levels of activity.
- **Non traumatic falls**
- Cellulitis
- Chest infections
- Urinary tract infections
- Dehydrated

For patients who meet the inclusion criteria, the attending clinician **MUST** ring the on call clinician at BCH direct on (028) 9063 5930. A decision will then be made whether the patient should be transported to BCH direct or if the acute care at home team will visit the patient. If the team decide to do a home visit, the team will attend the patient within 2 hours.

When the referral has been accepted, the crew should:
- Advise the patient that the team will arrive within 2 hours.
- Provide the patient with the phone number 028 9504 1341 to contact the team should they be delayed arriving.
- Advise the patient to recall 999 should the team fail to arrive or their condition deteriorates.
- Complete the PRF and leave a copy of it with the patient.
NIAS Referral Guidance for Belfast Integrated Care Partnership Acute Care at Home Team effective from 09/11/2015

The Belfast Integrated Care Partnership Acute Care at Home Team is a multidisciplinary community team based initially at Meadowlands in Musgrave Park Hospital. The aim of the service is to provide a patient focused holistic approach to care for older people and reduce the number of unplanned Emergency Department (ED) admissions. The Acute Care at Home Team will complement the existing BCH direct referral pathway and the team will accept direct referrals from NIAS paramedics.

By referring appropriate patients to the team, the patient is likely to receive more timely treatment, be less inconvenienced and have a better patient experience. NIAS crews will also avoid potentially long handover times and therefore improve availability for subsequent emergency calls.

Inclusion Criteria

- Patients referred must be resident in the Belfast Trust area.
- Patients should be aged > 75 years.
- Acute or intolerable deterioration in chronic conditions associated with for example, weight loss, exhaustion, weakness, falls, acute confusion, slowness, and low levels of activity.
- Non traumatic falls.
- Cellulitis.
- Chest infections.
- Urinary tract infections.
- Dehydrated.

Exclusion Criteria

The following patients should be transported directly to the ED:

- Acutely unwell patients, likely to need immediate resuscitation or for those who would normally require a standby.
- Patients with suspected stroke or TIA (FAST positive).
- Patients with suspected heart attack, DVT, fracture or GI bleed.
- Patients on home non-invasive ventilation or patients with tracheostomies.
- Patients with traumatic injuries.

Services Available

The Acute Care At Home team has direct has access to the following healthcare professionals:

- Consultant geriatrician
- Speciality doctor
- Senior nurse
- Pharmacist
- Occupational therapist
- Physiotherapist
- Social worker
- Community psychiatric nurse / old age psychiatry
Making the referral
For patients who meet the inclusion criteria, the attending clinician **MUST** ring the on call clinician at BCH direct on *(028) 9063 5930*. A decision will then be made whether the patient should be transported to BCH direct or if the acute care at home team will visit the patient. If the team decide to do a home visit, the team will attend the patient within 2 hours.

**Opening Hours of the Acute Care at Home Team**
This referral pathway will be available Monday – Friday from 0900 – 1700hrs

**Duty Of Care**
Once the service has verbally accepted the referral and agreed to attend, they, i.e. the Belfast Acute Care at Home have accepted the duty of care for that patient.

The patient should be advised that the team will attend within 2 hours. Should the team fail to arrive within 2 hours, the patient should ring *(028) 9504 1341* for advice.

The patient should be given advice to ring 999 should their condition deteriorate before the team arrives or if they fail to arrive.

Agreement to accept the patient by the referrer and advice given to the patient should be documented on the patient report form.

A copy of the patient report form should be left with the patient for the team to view on their arrival.
Alcohol Recovery Centre

NIAS
REFERRAL GUIDANCE
for Patients suitable for assessment at the
Alcohol Recovery Centre.

IMPLEMENTATION DATE:
18/12/2015

Version 7 updated 23 May 2016

SOURCE: Dr Nigel Ruddell. Assistant Medical Director Northern Ireland Ambulance Service
Linsey Sheerin. Clinical Co-ordinator Royal Victoria Hospital
Considerations

Patients between 14-18 years old.

Patients between 14-18 years old who are under the influence of alcohol and presenting with a condition requiring ED assessment should be transported to the RVH ED.

Secondary Transfers

There may be occasions whereby a patient being treated in the ARC will require further assessment / treatment in the ED. NIAS will assist the ARC staff by facilitating secondary transfers.

There may also be occasions whereby patients who are suitable for the ARC are transported to either the Royal Victoria Hospital or Mater Hospital ED. On these occasions, the ED nursing staff may request the patient to be transported to the ARC. The crew who took the patient to the ED will be required to transport the patient to the ARC. The crew should advise EAC that they have been redirected to the ARC.

Exclusion criteria

- Patients who present with any of the following should be transported directly to the ED:
  - Age < 14
  - Acutely unwell patients, likely to need immediate resuscitation or for those who would normally require a standby
  - Patients under the influence of alcohol but who have an acute medical condition requiring assessment / treatment.
  - Patients with a reduced GCS who require manual airway manoeuvres or use of adjuncts such as AP / OP airways
  - Patients with traumatic injuries which require assessment and treatment in the ED
  - Head injury with loss of consciousness at any time
  - Acute alcohol withdrawal
  - Chronic alcoholism
  - Seizures / fitting
  - Patients expressing suicidal ideation / carried out an act or threatening to carry out an act of self-harm
  - People who are homeless*

* Patients who are homeless often have more complex social care needs which require multidisciplinary input which can only be offered in the ED

Inclusion criteria for referral to the ARC:

- Patients who would normally have been transported to a Belfast ED
- Patients who are intoxicated
- Minor injury suitable for assessment and treatment in the ARC (e.g. minor wounds, sprains, soft tissue injury)
- Transient LOC - Patients who may have experienced a transient LOC but, who have no history of trauma or injury or any signs of visible injuries, who have no known underlying medical condition that would have caused LOC.
- Assault with no loss of consciousness
- Age >14 years

Making the referral to the ARC

To refer a patient to the ARC, the paramedic MUST first ring the unit to discuss if the patient is suitable for assessment and treatment. The telephone number for the ARC is: 07590 443214.

The ARC is located in the Bradbury Health and Well Being Centre, 1-17 Lisburn Road, Belfast, BT9 7AA.
NIAS Referral Guidance for patients suitable for assessment at the Alcohol Recovery Centre

Background
Alcohol misuse costs the Northern Ireland economy £700 million per annum with the binge drinking group accounting for up to 70% of weekend attendances at UK Emergency Departments (ED). Northern Ireland has seen alcohol-related hospital admissions increasing by 61% between 2000/01 and 2009/10.

The Belfast Health and Social Care Trust (BHSCT) in collaboration with multiple agencies including the Northern Ireland Ambulance Service have developed a new initiative known as the Alcohol Recovery Centre (ARC). The ARC is a nurse led unit based in the Bradbury Health and Well Being Centre and will offer an alternative facility to the current transfer of intoxicated individuals to the Emergency Unit to ‘sober up’ utilising ED trolleys that are required for the treatment of acutely ill and injured patients.

Aims of the ARC

- Provide a safe, caring environment within the City of Belfast and surrounding areas to treat members of the public requiring supportive measures to recover from heavy alcohol consumption
- Ensure the safety of vulnerable persons
- Provide appropriate minor injury / first aid treatment to intoxicated individuals
- Ensure timely and appropriate patient transfer from the ARC to the ED if required
- Improve ambulance handover times and reduce the inappropriate use of emergency vehicles
- Reduce alcohol related attendances to the Belfast EDs freeing up both trolley space and clinicians’ time
- Improve the use of resources for all partners - Police Service, Health Trusts and voluntary sector
- Educate individuals on the significant health risks associated with exceeding safe limits of drinking thereby improving long term health
- Promote the safe, sensible and legal consumption of alcohol and positively influence the current binge drinking culture within the City of Belfast
- Work in partnership with licensees and retailers to control the inappropriate sale of alcohol thereby promoting safer drinking and reducing crime rates
- Actively promote partnership working with higher education institutes, substance misuse services and ‘Stay Safe’ initiatives
- Promote a zero tolerance approach to violence and aggression using ‘case management’ to report perpetrators of aggression and those habitually drunk and disorderly
- Provide university students health promotion advice and develop feedback mechanisms to Universities in compliance with the Anti-Social Behaviour Pathway

Inclusion Criteria for referral to the ARC
Patients who meet the following criteria are suitable for referral to the ARC:

- Patients who would normally have been transported to a Belfast ED
- Patients who are intoxicated
- Minor injury suitable for assessment and treatment in the ARC (e.g. minor wounds, sprains, soft tissue injury)
- Transient LOC - Patients who may have experienced a transient LOC but, who have no history of trauma or injury or any signs of visible injuries, who have no known underlying medical condition that would have caused LOC.
- Assault with no loss of consciousness
- Age >14 years
Exclusion Criteria
Patients who present with any of the following should be transported directly to the ED:

- Age < 14
- Acutely unwell patients, likely to need immediate resuscitation or for those who would normally require a standby
- Patients under the influence of alcohol but who have an acute medical condition requiring assessment / treatment.
- Patients with a reduced GCS who require manual airway manoeuvres or use of adjuncts such as NP / OP airways
- Patients with traumatic injuries which require assessment and treatment in the ED
- Head injury with loss of consciousness at any time
- Acute alcohol withdrawal
- Chronic alcoholism
- Seizures / fitting
- Patients expressing suicidal ideation / carried out an act or threatening to carry out an act of self-harm
- People who are homeless*
  *Patients who are homeless often have more complex social care needs which require multi-disciplinary input which can only be offered in the ED*

Making the referral to the ARC
The ARC will operate every Friday and Saturday night from 2300hrs – 0400hrs. To refer a patient to the ARC, the paramedic **MUST** first ring the unit to discuss if the patient is suitable for assessment and treatment. The telephone number for the ARC is: 07590 443214.
The ARC is located in the Bradbury Health and Well Being Centre. 1-17 Lisburn Road. Belfast. BT9 7AA

Duty Of Care
Once the patient has been handed over and accepted by the lead nurse, the BHSCT have accepted duty of care for that patient.

Considerations

Patients between 14-18 years old.
Patients between 14-18 years old who are under the influence of alcohol and presenting with a condition requiring ED assessment should be transported to the RVH ED.

Secondary Transfers
There may be occasions whereby a patient being treated in the ARC will require further assessment / treatment in the ED. NIAS will assist the ARC staff by facilitating secondary transfers.

There may also be occasions whereby patients who are suitable for the ARC are transported to either the Royal Victoria Hospital or Mater Hospital ED. On these occasions, the ED nursing staff may request the patient to be transported to the ARC. The crew should advise EAC that they have been redirected to the ARC.
NIAS
DESTINATION TRIAGE GUIDANCE
for Belfast City Hospital Frail and Elderly Assessment Unit.

IMPLEMENTATION DATE:
15/12/2014

SOURCE: Ciarán McKenna. Clinical Service Improvement Lead. NIAS
Paul Turkington. Consultant. Belfast City Hospital

Version 2: Updated 6 June 2016
Destination Triage Guidance for Belfast City Hospital Frail and Elderly Assessment Unit effective from 15th December 2014

The Belfast City Hospital Frail and Elderly Assessment Unit is more commonly known as “BCH Direct”. The unit opened on 15th Oct 2014 with the aim of assessing and treating frail and older people from the Belfast Trust Area. The initial trial ran from 15th Oct 2014 – 1st Dec 2014 and saw 192 patients successfully referred to the unit. Initially referrals were made by General Practitioners but following the successful trial, this referral pathway will now be made available to Paramedics.

By bringing an appropriate patient to the unit rather than travelling to a formal ED, the patient is likely to receive more timely treatment, be less inconvenienced and have a better patient experience. NIAS crews will also avoid potentially long handover times and therefore improve availability for subsequent emergency calls.

Inclusion Criteria

- Patients referred must be resident in the Belfast Trust area.
- Patients should be aged > 75 years.
- Acute or intolerable deterioration in chronic conditions associated with for example, weight loss, exhaustion, weakness, falls, acute confusion, slowness, and low levels of activity.
- Non traumatic falls.
- Cellulitis.
- Chest infections.
- Urinary tract infections.
- Dehydrated.

Exclusion Criteria

The following patients should be transported directly to the ED:

- Acutely unwell patients, likely to need immediate resuscitation or for those who would normally require a standby.
- Patients with suspected stroke or TIA (FAST positive).
- Patients with suspected heart attack, DVT, fracture or GI bleed.
- Patients on home non-invasive ventilation or patients with tracheostomies.
- Patients with traumatic injuries.
- There will be occasions whereby a patient will have been referred to BCH direct by the GP, but the attending crew identify a life threatening condition that warrants a standby to the ED. These patients should be transported to the ED under emergency conditions.

Services Available

BCH direct has access to the following healthcare professionals:

- Consultant geriatrician
- Speciality doctor
- Senior nurse
- Pharmacist
- Occupational therapist
- Physiotherapist
- Social worker
Making the referral
For patients who meet the inclusion criteria, the attending clinician **MUST** ring BCH Direct on (028) 9063 5930. A decision to transport directly to the unit can be made following this clinician to clinician conversation.

Opening Hours of the Units
- This referral pathway will be available 24 hours / day and 7 days / week.
- Between the hours of 0900-2100hrs patients should be taken directly to the unit on level 1 South.
- Between the hours of 2100-0900hrs patients will be re-directed to a smaller assessment area on level 7 South (L Bay).

Access
- The old Emergency Department doors are the preferred NIAS access route for the new BCH Direct Unit and all other wards / department not located on the ground floor.
- These ambulance doors are closed to the public from midnight to 06:00 am; during this time NIAS crews can open the doors using the code 7890.
Antrim Area Direct Assessment Unit

NIAS
REFERRAL GUIDANCE
for Antrim Area Hospital Direct Assessment Unit.

VERSION 3

UPDATED: 14/03/2016

SOURCE: Ciarán McKenna. Clinical Service Improvement Lead.
Dr Ryan Cherry. Staff Grade Acute Medicine.
Stephanie Greenwood. General Manager for Unscheduled Care and Cardiology
NIAS paramedic response to 999 call

The referral pathway is for patients who live within the Northern Trust catchment area and who would normally attend Antrim Hospital

Referral operates Monday – Friday 0900 – 1800hrs

Patient meets inclusion criteria:
- Patients referred must be resident in the Northern Trust area AND would normally have been transported to Antrim Hospital.
- Patients should be aged > 16 years.
- Acute or intolerable deterioration in chronic conditions associated with, for example, weight loss, exhaustion, weakness, falls, acute confusion, slowness, “funny turns” and low levels of activity / loss of mobility.
- Generalised frailty / unable to cope at home
- Dizziness
- Non traumatic falls.
- Cellulitis of limb.
- Chest infections.
- Pleuritic chest pain
- Urinary tract infections / pyelonephritis.
- Dehydrated.
- Atraumatic headache
- Hypertension as presenting complaint
- Anaemia

Patient does not meet criteria

A&E transport not required / patient making own way

The NIAS appropriate referral / transport guideline provides the following advice to paramedics regarding patients who either do not require A&E transport or are able to make their own way to hospital / minor injury unit.

“Following assessment and treatment of a patient it may be apparent that attendance at hospital is not required and / or the patient is able to make their own way. Once the paramedic has established that no clinical intervention or further assessment / monitoring is required during transport, it is acceptable for paramedics to suggest alternative means of transport. Paramedics should not get involved in confrontation and if the patient has no other form of transport available, then the crew should transport by ambulance.

Where a patient is making their own way to ED or an appropriate care destination, they should ideally be left in the care of a responsible person. The patient report form should have clear documentation of patient assessment, diagnosis and referral pathway. Significant signs / symptoms should have been addressed and advice given in relation to what the patient should do should their condition deteriorate. This should be documented on the PRF and a copy of the PRF should be given to the patient.”

For patients who meet the inclusion criteria, the attending clinician MUST ring the on call clinician at the Acute Assessment Unit on 028 7034 6364. A decision will then be made whether the patient is suitable for assessment / treatment at the unit.

When the referral has been accepted, the crew should transport the patient directly to the Acute Assessment Unit. Access to the Acute Assessment Unit is via the old Emergency Department doors at Antrim Hospital.
NIAS Referral Guidance for Antrim Area Hospital Direct Assessment Unit - updated

14/03/2016

The Direct Assessment Unit is located within the old Emergency Department (ED) of Antrim Area Hospital. General Practitioners currently refer patients to the unit and there is now an opportunity to extend this pathway to paramedics. The aim of the unit is to assess and treat patients with an acute medical need and prevent unnecessary Emergency Department admissions.

By bringing an appropriate patient to the unit rather than travelling to the ED, the patient is likely to receive more timely treatment, be less inconvenienced and have a better patient experience. NIAS crews will also avoid potentially long handover times and therefore improve availability for subsequent emergency calls.

Inclusion Criteria

- Patients referred must be resident in the Northern Trust area AND would normally have been transported to Antrim Hospital.
- Patients should be aged > 16 years.
- Acute or intolerable deterioration in chronic conditions associated with for example, weight loss, exhaustion, weakness, falls, acute confusion, slowness, “funny turns” and low levels of activity / loss of mobility.
- Generalised frailty / unable to cope at home
- Dizziness
- Non traumatic falls.
- Cellulitis of limb.
- Chest infections.
- Pleuritic chest pain
- Urinary tract infections / pyelonephritis.
- Dehydrated.
- Atraumatic headache
- Hypertension as presenting complaint
- Anaemia

Exclusion Criteria

The following patients should be transported directly to the ED:

- Acutely unwell patients, likely to need immediate resuscitation or for those who would normally require a standby.
- Patients with an acute surgical presenting complaint.
- Patients with a gynae / obstetric presenting complaint.
- Patients with suspected stroke or TIA (FAST positive).
- Patients with suspected heart attack, DVT, fracture or GI bleed.
- Patients on home non-invasive ventilation or patients with tracheostomies.
- Patients with traumatic injuries.
- There will be occasions whereby a patient will have been referred to the Acute Assessment Unit by the GP, but the attending crew identify a life threatening condition that warrants a standby to the ED. These patients should be transported to the ED under emergency conditions.
Services Available

The Direct Assessment Unit is staffed by 2 staff grade doctors who are supported by a consultant. In addition, the unit has access to the following healthcare professionals:

- Speciality doctor
- Senior nurse
- Pharmacist
- Occupational therapist
- Physiotherapist
- Social worker

Making the referral

For patients who meet the inclusion criteria, the attending clinician MUST ring the unit on 028 7034 6364. A decision to transport directly to the unit can be made following this clinician to clinician conversation.

Opening Hours of the Units

- This referral pathway will be available Monday – Friday 0900 – 1800hrs.
- Should the crew arrive at the unit after 1800hrs, they should proceed to the ED.

Access

- Access to the Direct Assessment Unit is via the old Emergency Department doors at Antrim Hospital.

A&E transport not required / patient making own way

The NIAS appropriate referral / transport guideline provides the following advice to paramedics regarding patients who either do not require A&E transport or are able to make their own way to hospital / minor injury unit.

“Following assessment and treatment of a patient it may be apparent that attendance at hospital is not required and / or the patient is able to make their own way. Once the paramedic has established that no clinical intervention or further assessment / monitoring is required during transport, it is acceptable for paramedics to suggest alternative means of transport. Paramedics should not get involved in confrontation and if the patient has no other form of transport available, then the crew should transport by ambulance.

Where a patient is making their own way to ED or an appropriate care destination, they should ideally be left in the care of a responsible person. The patient report form should have clear documentation of patient assessment, diagnosis and referral pathway. Significant signs / symptoms should have been addressed and advice given in relation to what the patient should do should their condition deteriorate. This should be documented on the PRF and a copy of the PRF should be given to the patient.”
Southern Acute Care at Home

NIAS
REFERRAL GUIDANCE
for Southern Trust Acute Care at Home Team.

UPDATED: 13/04/2015

SOURCE: Ciarán McKenna. Clinical Service Improvement Lead.
Dr Patricia McCaffrey. Consultant Geriatrician, Acute Care at Home, SHSCT
Eamon Farrell. TYC Service Improvement Lead, SHSCT
**Referral Guidance for Southern Trust Acute Care at Home Team updated 13th April 2015**

The Southern Trust Acute Care at Home Team (AC@HT) is a consultant geriatrician led team based in the Day Hospital in Lurgan Hospital. The aim of the service is to provide a patient focused holistic approach to care for older people and reduce the number of unplanned Emergency Department (ED) admissions. The AC@HT is already established and provides home treatment for elderly patient’s resident within the Greater Craigavon catchment area. The team are now willing to accept direct referrals from NIAS paramedics.

By referring appropriate patients to the team, the patient is likely to receive more timely treatment, be less inconvenienced and have a better patient experience. NIAS crews will also avoid potentially long handover times and therefore improve availability for subsequent emergency calls.

**Pilot Area**

**Referrals will be accepted between the hours of 9am to 5pm Monday to Friday.** The agreed area for the pilot scheme is for patients living in their own home aligned to 17 GP practices (8 practices in Portadown Health Centre, 2 Practices in Brownlow, 6 practices in Lurgan, 1 practice in Donaghcloney) (see appendix i for full list of practices).

![Domiciliary Coverage Map](image1.png)

The service will also accept referrals from Nursing and Care Homes in the following post code BT62, BT63 and BT66 (see appendix ii for full list of homes names and addresses).

![Care Home Coverage Map](image2.png)
Inclusion Criteria

- Patients referred must be aligned to one of the 17 GP practices or be resident within Nursing Homes listed in the catchment area.
- Patients should be aged > 75 years.
- Acute or intolerable deterioration in chronic conditions associated with for example, weight loss, exhaustion, weakness, falls, acute confusion, slowness, and low levels of activity.
- Unable to cope.
- Falls.
- Cellulitis.
- Chest infections.
- Urinary tract infections.
- Dehydrated.
- Blocked catheters
- Sepsis

Exclusion Criteria – The following patients should be conveyed directly to the ED.

- Critically unwell patients.
- Patients with suspected stroke or TIA (FAST positive).
- Patients with suspected heart attack, DVT, fracture or GI bleed.
- Patients with an acute mental health issue.
- Patients with acute surgical or orthopaedic crisis.
- Patients with traumatic injuries.
- PEWS score over 4 – regional guidance for NIAS staff to transport immediately to ED.

Services Available

The service has access to the following healthcare professionals:

- Consultant geriatrician
- Speciality doctor
- Specialist nurses
- Pharmacist
- IV co-ordinator nurse
- Mental health nurse (CPN)
- Occupational therapist
- Physiotherapist

Making the referral

For patients who meet the inclusion criteria, the attending clinician should ring the team on 02838 613010. The AC@HT Consultant / Associate Specialist Doctor will speak directly with the attending crew and advise if the patient is suitable for referral or if they should be taken to the ED. Once the referral has been accepted, the AC@HT will attend to the patient within 2 hours.

The AC@HT will contact the patient’s GP to advise that a referral has been received and to outline the plan of action. On occasions, it may be appropriate to transport the patient direct to the Rapid Access Clinic in Lurgan hospital. The AC@HT medic will discuss this option with the attending crew.
Once the referral has been accepted and the AC@HT agree to attend, the AC@HT have accepted duty of care for that patient. The crew should inform EAC (Emergency Ambulance Control) that an Alternative Care Pathway has been used before clearing.

**Opening Hours of the AC@HT**

- This referral pathway will be available from 0900hrs – 1700hrs Monday - Friday.

**Duty Of Care**

Once the service has verbally accepted the referral and agreed to attend, they, i.e. the Southern Health and Social Care Trust have accepted the duty of care for that patient.

The patient should be advised that the team will attend within 2 hours.

The patient should be given advice to ring 999 should their condition deteriorate before the team arrives or if they fail to arrive.

Agreement to accept the patient by the referrer and advice given to the patient should be documented on the patient report form.

A copy of the patient report form should be left with the patient for the AC@HT to view on their arrival.
### Appendix i - List of GP Practices

<table>
<thead>
<tr>
<th>GPs for Domiciliary Referrals</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr Clarke &amp; Partners</td>
<td>Brownlow Health Centre</td>
</tr>
<tr>
<td>Dr McDonald &amp; Partners</td>
<td>Wynne Hill Surgery, Lurgan</td>
</tr>
<tr>
<td>Dr Troughton &amp; Partner</td>
<td>The Health Centre, Portadown</td>
</tr>
<tr>
<td>Dr Lennon &amp; Partner</td>
<td>60A Main Street, Donaghcloney</td>
</tr>
<tr>
<td>Dr Eakin &amp; Partners</td>
<td>The Health Centre, Portadown</td>
</tr>
<tr>
<td>Dr Doyle &amp; Partner</td>
<td>60 High Street, Lurgan</td>
</tr>
<tr>
<td>Dr McAnallen &amp; Partners</td>
<td>The Surgery, Lurgan</td>
</tr>
<tr>
<td>Dr Wilson &amp; Partners</td>
<td>28 Church Walk, Lurgan</td>
</tr>
<tr>
<td>Dr Hunter &amp; Partner</td>
<td>Brownlow Health Centre</td>
</tr>
<tr>
<td>Dr Southwell &amp; Partners</td>
<td>87/89 William Street</td>
</tr>
<tr>
<td>Dr Morton &amp; Partners</td>
<td>The Health Centre, Portadown</td>
</tr>
<tr>
<td>Dr Mathews &amp; Partners</td>
<td>The Health Centre, Portadown</td>
</tr>
<tr>
<td>Dr Connery &amp; Partners</td>
<td>The Health Centre, Portadown</td>
</tr>
<tr>
<td>Dr Burnett &amp; Partner</td>
<td>The Health Centre, Portadown</td>
</tr>
<tr>
<td>Dr MacDonald</td>
<td>The Health Centre, Portadown</td>
</tr>
<tr>
<td>Dr Gormley &amp; Partner</td>
<td>The Old School House Medical Centre, Lurgan</td>
</tr>
</tbody>
</table>
## Appendix ii - Nursing Home Coverage for Rapid Response Pilot with NIAS

<table>
<thead>
<tr>
<th>Home</th>
<th>Manager</th>
<th>Address</th>
<th>Postcode</th>
<th>Tel No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aughnacloy House</td>
<td>Alison Wylie</td>
<td>2 Tandragee Road</td>
<td>Lurgan</td>
<td>028 3834 6400</td>
</tr>
<tr>
<td>Donaghcloney</td>
<td>Tracy Palmer</td>
<td>1 Monree Road, Donacloney</td>
<td>Craigavon</td>
<td>028 3888 2343</td>
</tr>
<tr>
<td>Glenview (Portadown)</td>
<td>Jonathan Dougan</td>
<td>11 Bleary Road</td>
<td>Portadown</td>
<td>028 3835 0500</td>
</tr>
<tr>
<td>Lisnisky</td>
<td>Edith Harrison</td>
<td>16 Lisnisky Lane</td>
<td>Portadown</td>
<td>028 3833 9153</td>
</tr>
<tr>
<td>Lough Neagh</td>
<td>Bernie Burke</td>
<td>23 Maghery Road, Milltown</td>
<td>Portadown</td>
<td>028 3885 2600</td>
</tr>
<tr>
<td>Mahon Hall</td>
<td>Marie Beth Ritchie</td>
<td>16 Mahon Road</td>
<td>Portadown</td>
<td>028 3835 0981</td>
</tr>
<tr>
<td>Rosemount</td>
<td>Claire McKenna</td>
<td>2 Moy Road</td>
<td>Portadown</td>
<td>028 3833 1311</td>
</tr>
<tr>
<td>Sandringham</td>
<td>Adrian Moriarty</td>
<td>24 Sandringham Court</td>
<td>Portadown</td>
<td>028 3839 4194</td>
</tr>
<tr>
<td>St Francis</td>
<td>Leanne McGaffin</td>
<td>71 Charles Street</td>
<td>Portadown</td>
<td>028 3835 0970</td>
</tr>
<tr>
<td>Belvedere</td>
<td>Ashley Currie</td>
<td>63 Gilford Road</td>
<td>Lurgan</td>
<td>028 3832 5709</td>
</tr>
<tr>
<td>Manor Court</td>
<td>Carol McCoy</td>
<td>Sloan Street</td>
<td>Lurgan</td>
<td>028 3832 9586</td>
</tr>
<tr>
<td>Rathowen</td>
<td>Melanie Wortley</td>
<td>119 Portadown Road</td>
<td>Tandragee</td>
<td>028 3884 0226</td>
</tr>
</tbody>
</table>
Chronic Heart Failure

NIAS
REFERRAL GUIDANCE
for Patients with Exacerbation of Chronic Heart Failure.

IMPLEMENTATION DATE:
01/11/2016

Version 4: Updated 10 Jan 2017

SOURCE: Dr Ruddell, Assistant Medical Director
Ciarán McKenna, Clinical Service Improvement Lead.
Referral Guidance for Patients with Exacerbation of Chronic Heart Failure

The following patients should be transported directly to ED:

- Acutely unwell patients, likely to need immediate resuscitation or for those who would normally require a standby
- Persistent central chest pain (> 15 minutes) which is crushing or constricting in nature and radiates to shoulders; upper abdomen /neck / jaws / arms
- Patients requiring treatment with IV furosemide
- Productive cough with pink frothy sputum
- Systolic BP <90mmhg or > 200mmhg
- Heart rate <50 or greater than >130
- Severe breathlessness
- Central cyanosis
- Impaired level of consciousness or acute confusion
- Patients unable to cope at home
- Patients who refuse care at home

Patient meets inclusion criteria:

- Patients with a confirmed diagnosis of heart failure and already known to the heart failure nurse
- Patient is over 18
- Fully orientated and co-operative
- Respiratory Rate < 30 breaths / minute
- SpO2 > 94% on room air or home oxygen
- Adequate social support
- Patient has telephone or family member/carer consents to be point of contact

Exclusion criteria

To make a referral, the crew should ring the heart failure nurse:

<table>
<thead>
<tr>
<th>Southern Trust</th>
<th>Belfast Trust</th>
</tr>
</thead>
<tbody>
<tr>
<td>Craigavon</td>
<td>Newry &amp; Mourne</td>
</tr>
<tr>
<td>07841469743</td>
<td>07595 885213</td>
</tr>
<tr>
<td>02895049494</td>
<td></td>
</tr>
</tbody>
</table>

Duty Of Care

- Once the heart failure nurse has verbally accepted the referral and agreed to attend, the Southern / Belfast Health and Social Care Trust have accepted the duty of care for that patient.
- The patient should be left in the care of a responsible person while waiting for the nurse to arrive.
- The patient should be advised that the nurse will attend within 2 hours or the time advised by the nurse.
- The patient should be given advice to ring 999 should their condition deteriorate before the nurse arrives or if they fail to arrive.
- Agreement to accept the patient by the heart failure nurse and advice given to the patient should be documented on the patient report form.
- A copy of the patient report form and 12 lead ECG should be left with the patient for the nurse to view on their arrival.
NIAS Referral Guidance for patients with exacerbation of chronic heart failure effective from 1st November 2016

Chronic Heart Failure
Heart failure is a complex syndrome of symptoms and signs that suggest the efficiency of the heart as a pump is impaired. It is caused by structural or functional abnormalities of the heart. Untreated it has a poor prognosis, but this can be improved considerably with early and optimal treatment. The most common causes of heart failure in the UK are coronary artery disease and hypertension; many patients have had a myocardial infarction in the past. Around 900,000 people in the UK have heart failure with the prevalence in Northern Ireland 7.56 per 1000 people.

People with chronic heart failure should have the opportunity to make informed decisions about their care and treatment, in partnership with their healthcare professionals. This may mean that they receive care at home instead of a hospital setting. If the patient agrees, families and carers should also have the opportunity to be involved in decisions about treatment and care.

NIAS paramedics can now refer patients experiencing an exacerbation of their heart failure symptoms to heart failure nurses in the Southern Trust and Belfast Trust areas.

Inclusion Criteria for referral
Patients who meet the following criteria are suitable for referral:
- Patients with a confirmed diagnosis of heart failure and already known to the heart failure nurse
- Patient is over 18
- Fully orientated and co-operative
- Respiratory Rate < 30 breaths / minute
- SpO2 > 94% on room air or home oxygen
- Adequate social support
- Patient has telephone or family member/carer consents to be point of contact

Exclusion Criteria
The following patients should be transported directly to the ED:
- Acutely unwell patients, likely to need immediate resuscitation or for those who would normally require a standby
- Persistent central chest pain (> 15 minutes) which is crushing or constricting in nature and radiates to shoulders; upper abdomen /neck / jaws /arms
- Patients requiring treatment with IV furosemide
- Productive cough with pink frothy sputum
- Systolic BP <90mmhg or > 200mmhg
- Heart rate <50 or greater than >130
- Severe breathlessness
- Central cyanosis
- Impaired level of consciousness or acute confusion
- Patients unable to cope at home
- Patients who refuse care at home
Services available to the heart failure nurses

The heart failure nurses have access to the following healthcare professionals / services:

- Cardiologist / GP advice
- Pharmacist / Medication review
- Patient support groups
- Smoking cessation advice
- Cardiac investigations e.g. ECHO; 24 hr tape
- Liaison with district nursing
- ICD / pacemaker clinics

Hours of operations

This pathway is available in the Southern and Belfast Trust areas and is available Mon – Fri 0900-1700.

Making the referral

To make a referral, the crew should ring the heart failure nurse:

<table>
<thead>
<tr>
<th>Southern Trust</th>
<th>Belfast Trust</th>
</tr>
</thead>
<tbody>
<tr>
<td>Craigavon</td>
<td>Newry &amp; Mourne</td>
</tr>
</tbody>
</table>

Duty Of Care

- Once the heart failure nurse has verbally accepted the referral and agreed to attend, the Southern / Belfast Health and Social Care Trust have accepted the duty of care for that patient.
- The patient should be left in the care of a responsible person while waiting for the nurse to arrive.
- The patient should be advised that the nurse will attend within 2 hours or the time advised by the nurse.
- The patient should be given advice to ring 999 should their condition deteriorate before the nurse arrives or if they fail to arrive.
- Agreement to accept the patient by the heart failure nurse and advice given to the patient should be documented on the patient report form.
- A copy of the patient report form and 12 lead ECG should be left with the patient for the nurse to view on their arrival.

Further information

CPAP Continuous Positive Airway Pressure (CPAP)

CPAP is a form of Noninvasive Positive Pressure Ventilation (NPPV) which is becoming increasingly popular in the field management of the patient suffering from heart failure. CPAP:

- Improves the ability of the alveoli to diffuse oxygen to the red blood cells, by using pressure to drive gas into the alveoli and open up unused or collapsed alveoli.
- Increases the resistance of gas flow during exhalation providing resistance to the exiting airflow of gas from the lungs.
- Can lessen the shortness of breath experienced by the patient by improving the performance of the heart. Ventilation improves and airway secretions are removed improving oxygenation and CO2 removal.
- Also helps by increasing intrathoracic pressure, causing an increase in cardiac output.
**Cardiac Resynchronisation Therapy Pacemaker (CRTP)**

A traditional pacemaker has one or two leads that are placed into the right side of the heart. One lead is placed in the right ventricle and the second in the right atrium. CRTP's help improve heart failure symptoms by placing an additional lead in the left ventricle. The result is that the left ventricle contracts at the same time as the right which can restore the hearts coordination so it pumps more efficiently.

**Implantable Cardioverter Defibrillator (ICD)**

An ICD is a pacemaker type device that continuously monitors the heart rhythm. It has the ability to pace a very slow heart rate if the base rate has been set for this and it can provide anti-tachy pacing for faster ventricular arrhythmias; or provide cardioversion or provide defibrillation depending on the presenting cardiac rhythm. (The default lower heart rate on ICD's is 30 bpm and only increased if we ask it to be, sometimes an assumption is made that this has been done when it hasn’t)

**Cardiac Resynchronisation Therapy defibrillator (CRTD)**

A CRTD has both pacing and defibrillation capabilities. An additional lead in the left ventricle makes the heart pump in a coordinated way.

**Pitting oedema**

Oedema is the build-up of fluid which is normally secondary to increased venous pressure and results in the affected tissue becoming swollen. It is a symptom of a range of health conditions including heart failure. Pitting oedema commonly presents around the feet and ankles however, in patients with heart failure this can extend to the thighs and buttocks. This may be a normal presentation for this patient and in the absence of any exclusion criteria; the patient will still be suitable for referral.

Patients with “red flag” oedema - that is oedema that developed rapidly with associated symptoms such as severe shortness of breath; chest pain or productive cough with pink frothy sputum should be transported to the ED.
NIAS REFERRAL PILOT

Patients presenting in Southern Trust area with clear evidence of a fractured neck of femur.

IMPLEMENTATION DATE:

01/10/2015

SOURCE: Dr Nigel Ruddell. Assistant Medical Director.

17 September 2015
NIAS Referral Pilot for patients presenting in Southern Trust catchment area with clear evidence of a fractured neck of femur

Patients presenting with a fracture of the neck of femur in the Southern Trust catchment area all have their definitive treatment performed in Craigavon Area Hospital, as orthopaedic surgery is not available in Daisy Hill Surgery. A pilot has been proposed by the Southern Trust whereby patients who present to NIAS crews with clear clinical evidence of a fractured neck of femur should be brought directly to the Emergency Department at Craigavon Hospital rather than undergoing initial assessment in Daisy Hill Hospital.

The benefit to the patient is that direct primary transfer can reduce the time to definitive care, and NIAS will also benefit through the avoidance of a secondary transfer. The purpose of this pilot is to identify whether such benefits can be realised and will also assess any adverse operational impact on NIAS due to factors as “vehicles out of area” or increased turnaround times at Craigavon Area Hospital Emergency Department. As part of this pilot, the Southern Trust has also undertaken to review the triage and handover process for NIAS patients at Craigavon ED.

Inclusion Criteria
The call originates in the Southern Trust catchment area
AND
Patient has clear clinical evidence of a fracture of the neck of femur i.e.
• Rotation and shortening of the affected limb
AND
• Inability to weight bear
AND
• A history of fall or other trauma preceding the onset of symptoms.

Exclusion Criteria
The following patients should be transported directly to the nearest ED regardless of the pilot:
• Patients outside of the Southern Trust catchment area.
• Acutely unwell patients, likely to need immediate resuscitation or for those who would normally require a standby request.

Making the referral
• No specific pre-alert notification to Craigavon ED is required unless dictated by normal protocols.
• On arrival, the receiving ED staff should be notified that the patient is suspected of having a fracture of the neck of femur and has been brought direct to Craigavon ED rather than Daisy Hill.

Operating hours
• This referral pathway will be available on a 24/7 basis.
• The initial pilot will commence on the 1st of October 2015 and run for a minimum of one month, following which it will be reviewed by the Southern Trust and NIAS.

Adverse incident reporting
• Any adverse or untoward incident involving a patient involved in this pilot (including delayed handover) should be reported to NIAS via the normal NIAS UIR process.
South Eastern Enhanced Care at Home

NIAS REFERRAL GUIDANCE for South Eastern Trust Enhanced Care at Home Team.

IMPLEMENTATION DATE:
01/04/2016

SOURCE: Dr Gráinne Doran General Practitioner North Down
Ciarán McKenna. Clinical Service Improvement Lead.
Referral Guidance for Patients suitable for South Eastern Trust Enhanced Care at Home Team

The following patients should be transported to ED:
- Acutely unwell patients, likely to need immediate resuscitation or for those who would normally require a standby
- Patients with suspected stroke or TIA (FAST positive)
- Patients with suspected heart attack, DVT, fracture or GI bleed
- Patients on home non-invasive ventilation or patients with tracheostomies
- Patients with traumatic injuries.

Exclusion criteria

Patient meets inclusion criteria:
- Patients referred must be resident in the South Eastern Trust area
- Patients should be aged > 65 years
- Non traumatic falls
- Community acquired pneumonia
- COPD
- Cellulitis
- Chest infections
- Urinary tract infections
- Dehydrated

The attending clinician MUST ring the Enhanced Care at Home team on 02891 514333. A call handler will advise if the team have capacity to accept the patient. The call handler will require the following details which they will pass onto the team nurse:
- Patients GP name
- Patient address
- Patient phone number
- Ambulance crew contact number

The nurse will contact the paramedic via phone within 20 minutes and advise if the patient is suitable for referral or if they should be taken to the ED. Once the referral has been accepted, the enhanced care at home team will attend to the patient within a mutually agreed timeframe or a maximum of 2 hours. Should the nurse not return the telephone call within 20 minutes, the patient should be transported to the ED.

When the referral has been accepted, the crew should:
- Advise the patient that the team will attend within 2 hours. Should the team fail to arrive within 2 hours, the patient should ring 02891 514333 for advice.
- Advise the patient to ring 999 should their condition deteriorate before the team arrives or if they fail to arrive.
- Document agreement to accept the referral and advice given to the patient on the patient report form.
- Leave a copy of the patient report form with the patient for the team to view on their arrival.

Duty of Care

Once the team has verbally accepted the referral and agreed to attend, they, i.e. the Enhanced Care at Home team have accepted the duty of care for that patient.
NIAS Referral Guidance for South Eastern Trust Enhanced Care at Home Team effective from 01/04/2016

The Enhanced Care at Home team is a short term scheme to support patients over the age of 65. They are able to provide a comprehensive health assessment and treatment plan for each patient. Patients will have access to diagnostics and laboratory tests if required. The service aims to:

- Help patients be as safe and independent as possible at home
- Provide enhanced care to acutely unwell patients in their own home
- Avoid unnecessary admission to hospital

The team will provide care or support for up to 14 days.

By referring appropriate patients to the team, the patient is likely to receive more timely treatment, be less inconvenienced and have a better patient experience. NIAS crews will also avoid potentially long handover times and therefore improve availability for subsequent emergency calls.

Inclusion Criteria

- Patients referred must be resident in the South Eastern Trust area.
- Patients should be aged > 65 years.
- Non traumatic falls.
- Community acquired pneumonia
- COPD
- Cellulitis.
- Chest infections.
- Urinary tract infections.
- Dehydrated.

Exclusion Criteria

The following patients should be transported directly to the ED:

- Acutely unwell patients, likely to need immediate resuscitation or for those who would normally require a standby.
- Patients with suspected stroke or TIA (FAST positive).
- Patients with suspected heart attack, DVT, fracture or GI bleed.
- Patients on home non-invasive ventilation or patients with tracheostomies.
- Patients with traumatic injuries.

Services Available

The Enhanced Care At Home team has direct access to the following healthcare professionals:

- General practitioner
- Specialist nurse
- Social worker
- Rehabilitation services
- Physiotherapist
Making the referral

For patients who meet the inclusion criteria, the attending clinician **MUST** ring the Enhanced Care at Home team on 02891 514333. A call handler will advise if the team have capacity to accept the patient. The call handler will require the following details which they will pass onto the team nurse:

- Patients GP name
- Patient address
- Patient phone number
- Ambulance crew contact number

The nurse will contact the paramedic via phone within 20 minutes and advise if the patient is suitable for referral or if they should be taken to the ED. Once the referral has been accepted, the enhanced care at home team will attend to the patient within a mutually agreed timeframe or a maximum of 2 hours.

Should the nurse not return the telephone call within 20 minutes, the patient should be transported to the ED.

Once the referral has been accepted and the nurse agrees to attend, **the enhanced care at home team have accepted duty of care for that patient.** The crew should inform EAC that the enhanced care at home Appropriate Care Pathway has been used before clearing.

**Opening Hours of the Enhanced Care at Home Service**

- This referral pathway will be available 24 / 7

**Duty Of Care**

Once the team has verbally accepted the referral and agreed to attend, they, i.e. the Enhanced Care at Home team have accepted the duty of care for that patient.

The patient should be advised that the team will attend within 2 hours. Should the team fail to arrive within 2 hours, the patient should ring 02891 514333 for advice.

The patient should be given advice to ring 999 should their condition deteriorate before the team arrives or if they fail to arrive.

Agreement to accept the patient by the referrer and advice given to the patient should be documented on the patient report form.

A copy of the patient report form should be left with the patient for the team to view on their arrival.
Western Acute Care at Home

NIAS REFERRAL GUIDANCE for Western Trust Acute Care at Home Team.

IMPLEMENTATION DATE: 01/12/2016

Updated 05/01/2017

SOURCE: Ciarán McKenna. Clinical Service Improvement Lead. Dr Stephen Todd, Consultant Geriatrician, Acute Care at Home, WHSCT Jenny McWhirter, OPAL & Acute Care at Home Team Lead, WHSCT
Referral Guidance for Patients suitable for Western Trust Acute Care at Home Team

**NIAS paramedic response to 999 call**

The patient must live in a care home in BT47; BT48 or BT49 OR the patient lives in their own home and has a GP in the Greater Derry Area. The Greater Derry Area includes Cityside, Waterside, Eglinton, Newbuildings, Limavady and Strabane.

**Referral operates Monday - Friday 0900 - 1700**

The following patients should be transported to ED:

- Acutely unwell patients, likely to need immediate resuscitation or for those who would normally require a standby.
- Patients with suspected stroke or TIA (FAST positive).
- Patients with suspected heart attack, DVT, fracture or GI bleed.
- Patients with an acute mental health issue.
- Patients with acute surgical or orthopaedic crisis.
- Patients with traumatic injuries.
- NEWS score over 4.

Patient meets inclusion criteria:

- Patients referred must be aligned to one of the 20 GP practices or be resident within Nursing Homes listed in the catchment area.
- Patients should be aged > 75 years.
- Acute or intolerable deterioration in chronic conditions associated with for example, weight loss, exhaustion, weakness, falls, acute confusion, slowness, and low levels of activity.
- Unable to cope.
- Falls.
- Cellulitis.
- Chest infections.
- Urinary tract infections.
- Dehydrated.
- Blocked catheters
- Sepsis

**Paramedics should use clinical judgement to decide if patients who have had a non-traumatic fall should be referred to the rapid response team or the falls referral team**

For patients who meet the inclusion criteria. The attending paramedic should ring the team on 02871 864324. The on call consultant / associate specialist doctor will speak to the crew and advise if they are able to accept the referral.

When the referral has been accepted, the crew should:

- Advise the patient that the team will arrive within 2 hours.
- Advise the patient to recall 999 should the team fail to arrive or their condition deteriorates.
- Complete the PRF and leave a copy of it with the patient.

**Duty of Care**

Once the service has verbally accepted the referral and agreed to attend, they, i.e. the Western Health and Social Care Trust have accepted the duty of care for that patient.
Referral Guidance for Western Trust Acute Care at Home Team Updated 5 January 2017

The Western Trust Acute Care at Home Team (AC@HT) is a consultant geriatrician led team based in Waterside Hospital, Gransha Park. The aim of the service is to provide a patient focused holistic approach to care for older people and reduce the number of unplanned Emergency Department (ED) admissions. The AC@HT is already established and provides home treatment for elderly patient’s resident within the Greater Derry catchment area. The team are now willing to accept direct referrals from NIAS paramedics.

By referring appropriate patients to the team, the patient is likely to receive more timely treatment, be less inconvenienced and have a better patient experience. NIAS crews will also avoid potentially long handover times and therefore improve availability for subsequent emergency calls.

Pilot Area
Referrals will be accepted between the hours of 9am to 5pm Monday to Friday. The agreed area for the pilot scheme is for patients living in their own home aligned to 23 GP practices (11 practices in the Cityside area of Derry, 3 Practices in Waterside Health Centre, 4 practices in Limavady, 1 practice in Eglinton, 1 in Donemana and 3 in Strabane - see appendix i for full list of practices).

The service will also accept referrals from Nursing and Care Homes in the following post code BT47, BT48 and BT49 (see appendix ii for full list of homes names and addresses).

Inclusion Criteria

- Patients referred must be aligned to one of the 23 GP practices or be resident within Nursing Homes listed in the catchment area.
- Patients should be aged > 75 years.
- Acute or intolerable deterioration in chronic conditions associated with for example, weight loss, exhaustion, weakness, falls, acute confusion, slowness, and low levels of activity.
- Unable to cope.
- Falls.
- Cellulitis.
- Chest infections.
- Urinary tract infections.
- Dehydrated.
- Blocked catheters
- Sepsis

Exclusion Criteria

The following patients should be conveyed directly to the ED.

- Acutely unwell patients, likely to need immediate resuscitation or for those who would normally require a standby.
- Patients with suspected stroke or TIA (FAST positive).
- Patients with suspected heart attack, DVT, fracture or GI bleed.
- Patients with an acute mental health issue.
- Patients with acute surgical or orthopaedic crisis.
- Patients with traumatic injuries.
- NEWS score over 4.
Services Available

The service has access to the following healthcare professionals:

- Consultant geriatrician
- Speciality doctor
- Specialist nurses
- Pharmacist
- Occupational therapist
- Physiotherapist
- Band 3 Support Worker

Making the referral

For patients who meet the inclusion criteria, the attending clinician should ring the team on 02871 864324. The AC@HT Consultant / Associate Specialist Doctor will speak directly with the attending crew and advise if the patient is suitable for referral or if they should be taken to the ED. Once the referral has been accepted, the AC@HT will attend to the patient within 2 hours.

The AC@HT will contact the patient’s GP to advise that a referral has been received and to outline the plan of action. On occasions, it may be appropriate to transport the patient direct to the Rapid Access Clinic in Altnagelvin hospital. The AC@HT medic will discuss this option with the attending crew.

Once the referral has been accepted and the AC@HT agree to attend, the AC@HT have accepted duty of care for that patient. The crew should inform EAC (Emergency Ambulance Control) that an Appropriate Care Pathway has been used before clearing.

Opening Hours of the AC@HT

This referral pathway will be available from 0900hrs – 1700hrs Monday – Friday excluding Bank Holidays.

Duty Of Care

Once the service has verbally accepted the referral and agreed to attend, they, i.e. the Western Health and Social Care Trust have accepted the duty of care for that patient.

The patient should be advised that the team will attend within 2 hours.

The patient should be given advice to ring 999 should their condition deteriorate before the team arrives or if they fail to arrive.

Agreement to accept the patient by the referrer and advice given to the patient should be documented on the patient report form.

A copy of the patient report form should be left with the patient for the AC@HT to view on their arrival.
## Appendix i – List of GP Practices

### Initial Target Group

<table>
<thead>
<tr>
<th>GPs for domiciliary referrals:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. MORRISON &amp; PARTNERS</td>
<td>PARK MEDICAL, LONDONDERRY</td>
</tr>
<tr>
<td>Dr. SMITH &amp; PARTNERS</td>
<td>ABBEY MEDICAL PRACTICE, LONDONDERRY</td>
</tr>
<tr>
<td>Dr. MCEVOY &amp; PARTNERS</td>
<td>BAYVIEW MEDICAL PRACTICE, LONDONDERRY</td>
</tr>
<tr>
<td>Dr. MCCLOSKEY &amp; PARTNERS</td>
<td>ABERFOYLE MEDICAL PRACTICE, LONDONDERRY</td>
</tr>
<tr>
<td>Dr. LINTON &amp; PARTNERS</td>
<td>FOYLESIDE FAMILY PRACTICE, LONDONDERRY</td>
</tr>
<tr>
<td>Dr. O’KANE &amp; PARTNERS</td>
<td>BRIDGE STREET FAMILY PRACTICE, LONDONDERRY</td>
</tr>
<tr>
<td>Dr. CONNOLLY &amp; PARTNER</td>
<td>RIVERFRONT MEDICAL, LONDONDERRY</td>
</tr>
<tr>
<td>Dr. LALSINGH &amp; PARTNERS</td>
<td>CLARENDON MEDICAL, LONDONDERRY</td>
</tr>
<tr>
<td>Dr. MCCALLION AND PARTNERS</td>
<td>CITYVIEW MEDICAL, LONDONDERRY</td>
</tr>
<tr>
<td>Dr. DEANE &amp; PARTNER</td>
<td>NORTHSIDE MEDICAL PRACTICE, SHANTALLOW HEALTH CENTRE, LONDONDERRY</td>
</tr>
<tr>
<td>Dr. MCCLOSKEY AND PARTNERS</td>
<td>RACECOURSE MEDICAL GROUP, SHANTALLOW HEALTH CENTRE, LONDONDERRY</td>
</tr>
<tr>
<td>Dr. REIDY &amp; PARTNERS</td>
<td>QUAYSIDE MEDICAL PRACTICE, LONDONDERRY</td>
</tr>
<tr>
<td>Dr. SPENCE &amp; PARTNERS</td>
<td>GLENDERMOTT MEDICAL, LONDONDERRY</td>
</tr>
<tr>
<td>Dr. DEVLIN &amp; PARTNERS</td>
<td>OAKLEAF MEDICAL, LONDONDERRY</td>
</tr>
<tr>
<td>Dr. FULLERTON</td>
<td>DONEMANA SURGERY, DONEMANA</td>
</tr>
<tr>
<td>Dr. MANNING &amp; PARTNERS</td>
<td>EGLINTON HC, EGLINTON</td>
</tr>
<tr>
<td>Dr. MCQUILLAN &amp; PARTNERS</td>
<td>BOVALLY MEDICAL CENTRE, LIMAVADY</td>
</tr>
<tr>
<td>Dr. MAGEE &amp; PARTNERS</td>
<td>LIMAVADY HC, SCROGGY RD, LIMAVADY</td>
</tr>
<tr>
<td>Dr. QUINN &amp; PARTNERS</td>
<td>LIMAVADY HC, SCROGGY RD, LIMAVADY</td>
</tr>
<tr>
<td>Dr. DEVLIN &amp; Dr PRATT</td>
<td>ROSSAIR FAMILY PRACTICE, LIMAVADY</td>
</tr>
<tr>
<td>Dr. WATSON &amp; PARTNERS</td>
<td>FAMILY PRACTICE, STRABANE HC, STRABANE</td>
</tr>
<tr>
<td>Dr. O’FLAHERTY &amp; PARTNERS</td>
<td>RIVERSIDE PRACTICE STRABANE HC, STRABANE</td>
</tr>
<tr>
<td>Dr. GILLESPIE &amp; PARTNERS</td>
<td>MOURNESIDE MP, STRABANE</td>
</tr>
</tbody>
</table>
Appendix ii – Nursing Home Coverage for Rapid Response Pilot with NIAS

<table>
<thead>
<tr>
<th>Home</th>
<th>Manager</th>
<th>Address</th>
<th>Address</th>
<th>Postcode</th>
<th>Tel No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greenhaw Lodge</td>
<td>Ronagh McCaul</td>
<td>42 Racecourse Road</td>
<td>Derry</td>
<td>BT48 8DA</td>
<td>02871 354725</td>
</tr>
<tr>
<td>Brooklands PNH</td>
<td>Christine Donnell</td>
<td>25 Northland Rd</td>
<td>Derry</td>
<td>BT48 7NF</td>
<td>02871 263987</td>
</tr>
<tr>
<td>Owen Mor Care Centre</td>
<td>Jane Laird</td>
<td>167 Culmore Road</td>
<td>Derry</td>
<td>BT48 8JH</td>
<td>02871 353631</td>
</tr>
<tr>
<td>Culmore Manor</td>
<td>Ciaran Burke</td>
<td>39 Culmore Rd</td>
<td>Derry</td>
<td>BT48 8JB</td>
<td>02871 359302</td>
</tr>
<tr>
<td>William St Residential</td>
<td>Moia Irvine</td>
<td>98 William Street</td>
<td>Derry</td>
<td>BT48 6AD</td>
<td>02871 264213</td>
</tr>
<tr>
<td>Deanfield PNH</td>
<td>Joy McLaughlin</td>
<td>19 Deanfield, Limavady Rd</td>
<td>Derry</td>
<td>BT47 6HY</td>
<td>02871 344888</td>
</tr>
<tr>
<td>Seven Oaks</td>
<td>Toni Strawbridge</td>
<td>Crescent Link</td>
<td>Derry</td>
<td>BT47 6DN</td>
<td>02871 311278</td>
</tr>
<tr>
<td>Rectory Field</td>
<td>Dolores Moran</td>
<td>19B Limavady Rd</td>
<td>Derry</td>
<td>BT47 6JU</td>
<td>02871 347741</td>
</tr>
<tr>
<td>Seymour Gardens</td>
<td>Sandra Gallagher</td>
<td>Nelson Drive</td>
<td>Derry</td>
<td>BT47 6ND</td>
<td>02871 344470</td>
</tr>
<tr>
<td>Ardlough NH</td>
<td>Martina Mullan</td>
<td>2 Ardlough Road, Drumahoe</td>
<td>Derry</td>
<td>BT47 5SW</td>
<td>02871 342899</td>
</tr>
<tr>
<td>Daleview House</td>
<td>Marcella McCorkell</td>
<td>Shepherd’s Way, Dungiven Rd</td>
<td>Derry</td>
<td>BT47 5GW</td>
<td>02871 312390</td>
</tr>
<tr>
<td>Edgewater</td>
<td>John Green</td>
<td>70 Victoria Rd, Newbuildings</td>
<td>Derry</td>
<td>BT47 2RL</td>
<td>02871 342090</td>
</tr>
<tr>
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Appropriate Referral & Transport Policy

1.0 Title: Appropriate referral / transport policy

2.0 Author(s): Ciarán McKenna, Clinical Service Improvement Lead

3.0 Ownership: Dr David McManus, Medical Director

4.0 Date of SEMT Approval: 3/3/2015

5.0 Date of Trust Board Approval: 26 March 2015

6.0 Operational Date: 1 July 2015

7.0 Review Date: April 2018

8.0 Key words: Appropriate transport, appropriate care pathways, appropriate referrals, non-conveyance.


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1.0 Introduction

This policy is aimed at supporting the vision of “Transforming Your Care” by ensuring patients receive the right care in the right place at the right time.

The demand for emergency ambulances is increasing every year and the range of conditions and clinical presentations of patients continue to challenge both the Emergency Medical Dispatcher (EMD) and the attending paramedics. During the 2013/2014 year the Northern Ireland Ambulance Service (NIAS) saw an increase of 3.2% in the number of emergency calls it received. Sir Bruce Keogh (2013) has recognised that “current services are unsustainable”. Traditionally the only option for attending ambulance crews was to transport patients to the Emergency Department (ED). However, the Keogh Report (2013) identified from their analysis that 50% of 999 calls did not need ED attendance. The ED should now be regarded as just one of a range of pathways that can be utilised to ensure the patient receives the most appropriate care. Success in combating the increasing workload will rely on our ability to accurately assess, treat and refer patients to the most appropriate care providers. Our ability to adapt to this new way of working will see patients receive more timely and appropriate care, with the overall patient experience being enhanced. It will also improve the availability of ambulances for genuine emergency calls.

The policy supports the concept of reform, modernisation and improvement as described in the NIAS Comprehensive Spending Review (CSR) paper in February 2009. This paper discussed and consulted on the following principles:

- Supporting service development
- Implementation of clinical triage in the control room to provide clinically appropriate alternatives to non-urgent 999 calls. This is known as “hear and treat” and “hear and refer”.
- Treat and leave
- Treat and refer
- Implementation of Appropriate Care Pathways (ACPs)
- More efficient use of the intermediate care vehicles (ICV) to transport non urgent patients

1.1 Purpose

It is widely recognised that not every patient who contacts the ambulance service requires an ambulance response. A proportion of patients can be safely managed by telephone triage which is known as “hear and refer”. This service is currently provided by General Practitioners within the Emergency Ambulance Control room. When an ambulance does attend to a patient, it is also recognised that not every patient will require transport to the ED. Paramedics can now safely manage patients in the community by utilising “see and treat” and “see, treat and refer” Appropriate Care Pathways (ACPs). Examples of ACPs include referral to:

- The General Practitioner (GP)
- A minor injury unit
- A respiratory nurse
- A frail / elderly assessment unit
- A district nursing team
- A diabetic specialist nurse

Accessing these referral pathways will therefore ensure the patient receives the most appropriate care in the right place at the right time.

1.2 Objectives

This policy is designed to assist paramedics with their clinical decision making. By supporting paramedics to safely refer patients to the most appropriate care, patient experience is enhanced, paramedic confidence is increased and patient safety is maintained. Utilising appropriate care pathways will also ensure ambulances are available for genuine life threatening emergencies. Demand on local EDs will also be reduced.

2.0 Scope

2.1 The policy applies primarily to all NIAS Doctors and NIAS Paramedics who are responding to both emergency and non-emergency calls. However, Emergency Medical Technicians (EMTs) and Ambulance Care Attendants (ACAs) should have an understanding...
of the policy and how the changes to operational practice will impact on their roles, especially in relation to safeguarding.

2.2 Emergency Ambulance Control (EAC) staff should have an understanding of this policy and how the changes to operational practice will impact on their roles.

### 3.0 Responsibilities

#### 3.1 Chief Executive / Trust Board
The Chief Executive and the Trust Board has overall accountability for the service provided to all patients.

#### 3.2 Assurance Committee
The Assurance Committee is responsible for the implementation and monitoring of this policy and associated guideline.

#### 3.3 Medical Directorate
The Medical Director and Assistant Medical Director are responsible for ensuring that paramedics follow evidence based best practice and that all clinical standards are met. While numerous evidence bases exist, paramedics predominantly adhere to:

- National Institute for Health and Care Excellence (NICE) guidelines which are relevant to Ambulance services.
- Local Northern Ireland Ambulance Service specific guidelines.

The medical directorate will monitor all incidents and feedback arising from any aspect of non-transport and referral of patients. They will provide reports to the Assurance Committee as and when required.

Reporting of incidents can occur in a number of ways:

- Serious Adverse Incidents (SAI’s)
- Untoward Incident Reports (UIR’s)
- Compliments
- Complaints
- Direct communication from operational staff to their line management via phone call / email

#### 3.4 Operational Directorate
The operational directorate are responsible for the implementation of this policy. They will promote and support all operational personnel with the use of this policy. The policy will have varying degrees of impact depending on the member of staff using it.

##### 3.4.1 Operational Managers
Ambulance Service Area Managers (ASAMs) and Station Officers (SOs) will be required to adhere to this policy when carrying out their paramedic duties. In addition, they will oversee the implementation of this policy and support their staff with the interpretation and application of the policy. They will offer support and feedback to ensure that appropriate and safe decisions are made relating to patients who are referred to another destination or who decline transport.

##### 3.4.2 Paramedics
Paramedics will be the primary users of this policy and have a duty to follow it. They should recognise and work within the limits of their professional competence by undertaking duties and responsibilities which they are able to perform in a safe and skilled
manner and for which they have appropriate training, education and experience. Paramedics must always be able to clinically justify what they have / have not done and must always act in the best interests of the patient.

Paramedics are reminded of their responsibilities under the Health and Care Professions Council (HCPC) Standards of Proficiency and the Standards of Conduct, Performance and Ethics. Paramedics should be able to account for their clinical decision making and demonstrate evidence based best practice. They have a professional duty and obligation to maintain a high standard of practice.

The Health and Care Professions Council (2014) state in their paramedic standards of proficiency that paramedics should be able to refer patients appropriately. In addition the HCPC also state that paramedics are also expected to keep accurate, comprehensive and comprehensible records in accordance with applicable legislation, protocols and guidelines. Failure to refer patients / refer appropriately and / or failure to maintain accurate and comprehensive records may be regarded as a failure of that paramedic being able to carry out their duties.

Ultimately, as an autonomous and accountable professional, the paramedic will be responsible for the decisions they make and may be asked to justify them.

Paramedics are required to appropriately use the Mobile Data Terminals (MDTs) in order to accurately record ACP use.

3.4.3 Clinical Support Desk Clinician
The Clinical Support Desk clinician will have the same responsibilities as those outlined above. A primary function of the clinical support desk clinician will be to identify suitable calls for telephone triage and employ “hear and refer” pathways where appropriate and utilising clinical decision support software. The clinician will also identify and suggest appropriate care pathways for the attending paramedics.

Attending paramedics may also contact the Clinical Support Desk for advice and / or guidance. While the Clinical Support Desk clinician will be able to offer advice and / or guidance to the attending paramedic, the attending paramedic will have the final decision in regards to patient treatment / transport / referral.

Following the initial AMPDS triage, a predefined selection of calls will be passed to the CSD clinician for further assessment. This service is currently offered by a GP. The clinician supported with clinical decision software will undertake a thorough telephone consultation with the patient. Based on the outcome of this consultation, the clinician will offer advice on the most appropriate treatment or referral pathway suitable for the patients’ needs.

3.4.4 Emergency Medical Technicians
This policy is to be used primarily by paramedics; however, Emergency Medical Technicians (EMTs) should have an awareness and understanding of the policy and the impact it will have on their role.

3.4.5 Ambulance Care Assistants
This policy is to be used primarily by paramedics who will utilise appropriate care pathways and refer patients to appropriate destinations. Ambulance Care Attendants (ACAs) should have an awareness and understanding of this policy as they will be required to transport patients to appropriate destinations. The policy will also have an impact on their role in relation to safeguarding.

3.4.6 RRV Control Officers / Ambulance Control Officers
RRV and Ambulance Control Officers should have an awareness and understanding of this policy. The officers should be aware that crews may transport patients to destinations other than the ED. The officers should “Stop” the call with the appropriate code or utilise the “call plus” function in order to ensure accurate data capture. The officers should identify and suggest appropriate care pathways to paramedics.

3.4.7 Emergency Medical Dispatchers (EMDs) / Regional Pressures Coordination Centre (RPCC) call takers
EMD’s and RPCC call takers should have an understanding of this policy in order to identify and suggest appropriate care pathways to attending paramedics. They should “Stop” the call with the appropriate code or utilise the “call plus” function in order to ensure accurate data capture.
3.4.8 Information Analysts including Clinical Audit Functions

Staff within the Finance and ICT Directorate, Information Department will be responsible for the extraction and collation of emergency and non-emergency datasets to facilitate the monitoring and usage of referral pathway to support the Trust with the implementation of this Policy. Datasets extracted will be shared with internal and external stakeholders to ensure effective monitoring and reporting. The Clinical Audit functions will also analyse and extract PRF datasets as required, supporting other internal stakeholders with trend analysis, review, monitoring and audit of referral processes and pathways. They will also contribute to the Quality Improvement programme.

Information analysts will require an understanding of the policy in order to ensure correct data capture and reporting.

3.5 Clinical Training Team

The NIAS training team consists of the Clinical Training Manager (CTM); Divisional Training Officers (DTOs); Regional Training Officers (RTOs) and Clinical Support Officers (CSOs) under the direction of the Assistant Director of Human Resources, Education, Learning and Development.

The DTOs, RTOs and CSOs will support staff with the interpretation and application of the policy. The DTOs, RTOs and CSOs will offer support and feedback to staff to ensure that appropriate and safe decisions are made around patients who are referred to another destination or who decline transport.

The CSOs under the direction of the DTO will be responsible for patient report form (PRF) clinical audits including quality improvement audits. They will give feedback to staff following these audits and offer guidance on best practice where necessary.

4.0 Key Policy Principles

This policy supports the practice of referrals to appropriate care pathways. This can either be via attending paramedics or via a “hear and refer” pathway. The policy also covers the wider practice of patients who do not travel to hospital which may be for a number of reasons:

- The patient refused
- A&E Transport not required / Patient making own way
- A&E Transport not required/ Patient referred to non-emergency ambulance for transport
- Patient referred to an appropriate care pathway
- No further clinical intervention required following assessment

4.1 The Appropriate Referral and Transport guideline provides guidance relating to consent, mental capacity and clinical assessment. This guidance explains the effective patient assessment required in order to enact this policy and this should be followed by paramedics and documented appropriately on the PRF.

4.2 A patient may refuse to travel to hospital or to be referred to an Appropriate Care Pathway. Full assessment of these patients should be carried out by an attending paramedic as described in the Appropriate Referral guidance. The appropriate documentation should be completed regarding this.

4.3 An operational paramedic or Clinical Support Desk clinician may determine that A&E transport is not required to convey a patient to the appropriate service eg a Minor Injury Unit or ED or Pharmacy. Once the clinician has established that no clinical intervention or further assessment/monitoring is required during transport it is acceptable for alternative means of transport to be suggested. Staff should not get involved in confrontation and if the patient has no other form of transport available, then the crew should transport by ambulance.

4.4 An operational paramedic or Clinical Support Desk clinician may determine that A&E transport is not required to convey a patient to the appropriate service eg a Minor Injury Unit or ED or Pharmacy. Once the clinician has established that no clinical intervention or further assessment/monitoring is required during transport it is acceptable for alternative means of transport to be suggested. It may be appropriate for a non-emergency vehicle to convey the patient or for other transport options to be suggested.
4.5 An operational paramedic or Clinical Support Desk clinician may refer a patient to an Appropriate Care Pathway (Treat and Leave and Refer, or Treat and Refer) depending on patient assessment, referral criteria and availability of services. The pathway-specific referral guidelines should be used for guidance.

4.6 Following assessment in person or via phone an operational paramedic or Clinical Support Desk clinician may determine that no further clinical intervention is required. Thorough clinical assessment and robust documentation is required. The patient and their family/responsible person should be included in this and all decision making processes.

4.7 In line with the Appropriate Referral Guideline, if there is any doubt about a patient’s condition then the patient should be encouraged to travel to hospital.

4.1 Definitions

Appropriate Care Pathway
An Appropriate Care Pathway (ACP) is either referral to another healthcare provider or appropriate service or referral to a destination other than an Emergency Department. The decision to use an ACP is made by the NIAS paramedic after discussion with the patient. Examples of ACPs are given in section 1.1

5.0 Implementation

The primary users of this policy will be paramedics, however; it is relevant to all directorates within the Trust. The Operational Directorate will ensure policy implementation supported by the Clinical Training team. The Human Resource Directorate and Information Department will also require an awareness of the policy.

The policy will be issued to the above staff groups via multiple communication channels. All the above staff will require awareness raising as a minimum. The requirement for training in relation to this policy will be assessed at the monthly Education Learning and Development meeting with representation from the Medical Directorate, Operational Directorate, Clinical Training Department and Transformation and Modernisation team.

6.0 Monitoring Compliance and Effectiveness of the Policy

There will be a number of ways in which compliance with this policy and guideline will be monitored. These are as follows:

- Clinical Support Officers will audit a selection of all patient report forms where the patient did not travel to ED. The audit will ensure that best practice has been followed and Patient Report Form documentation is robust. Feedback will be given to the paramedic on each PRF audit. Information collected from this process will be reviewed by the DTOs and fed back to the Medical Director for the information of the Assurance Committee.

- There will be peer review of any incidents / complaints / serious untoward incidents (UIRs and SUIs) arising out of this policy.

- Review, monitoring and audit of referral processes and pathways will be conducted by the Clinical Audit Team on an on-going basis. Patient experiences will be sought in order to ensure our processes meet both the patients’ needs and their expectations. As the Transformation and Modernisation programme evolves, further ACPs will be added which will also be reviewed and audited as part on an ongoing Quality Improvement (QI) programme.

7.0 Approval of Policy Documents

This policy and attached guideline has been approved by the NIAS Assurance Committee and ratified by the Trust Board.

8.0 Review and Revision Arrangements
This policy should be reviewed every 2 years or sooner if appropriate.

9.0 Evidence Base

Appendix 1 contains the reference list for the evidence base that was used in the design of this policy.

10.0 Consultation Process

The following groups of staff were consulted with in the development of this policy:

- Medical Directorate
- Senior Executive Management Team
- Operations Directorate
- Human Resources Directorate
- Clinical Training Team
- Ambulance Service Area Managers
- Trade Unions

Focus groups were used to consult with a range of operational staff including Station Officers; Station Supervisors; paramedics; emergency medical technicians, ambulance care assistants and both EAC and NEAC staff.

11.0 Appendices

Appendix 1: Reference List

12.0 Equality Statement

12.1 In line with duties under Section 75 of the Northern Ireland Act 1998; Targeting Social Need Initiative; Disability Discrimination Act 1995 and the Human Rights Act 1998, an initial screening exercise, to ascertain if this policy should be subject to a full impact assessment, has been carried out.

12.2 The outcome of the screening exercise for this policy is:

- Major impact [ ]
- Minor impact [x]
- No impact. [ ]

13.0 SIGNATORIES

Ciaran McKenna       Date: 23/06/2016
Lead Author

Dr D McManus        Date: 23/06/2016
Lead Director
Appendix 1: References


North West Ambulance Service (2013) Paramedic Pathfinder


# Appropriate Referral & Transport Guideline

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1.0 Introduction

1.1 This guideline is aimed at supporting the vision of “Transforming Your Care” by ensuring patients receive the right care in the right place at the right time.

1.2 The demand for emergency ambulances is increasing every year and the range of conditions and clinical presentations of patients continue to challenge both the emergency medical dispatcher (EMD) and the attending paramedics. During the 2013/2014 year the Northern Ireland Ambulance Service (NIAS) saw an increase of 3.2% in the number of emergency calls it received. Sir Bruce Keogh (2013) has recognised that our “current services are unsustainable”. Traditionally the only option for attending paramedics was to transport patients to the Emergency Department (ED). However, the Keogh Report (2013) identified from their analysis that 50% of 999 calls did not need ED attendance. The ED should now be regarded as just one of a range of pathways that can be utilised to ensure the patient receives the most appropriate care. Success in combating the increasing workload will rely upon our ability to accurately assess, treat and refer patients to the most appropriate care providers. Our ability to adapt to this new way of working will see patients receive more timely and appropriate care, with the overall patient experience being enhanced.

1.3 It is widely recognised that not every patient who contacts the ambulance service requires an ambulance response. A proportion of patients can be safely managed by telephone triage which is known as “hear and refer” - a service currently undertaken by GPs within NIAS EAC. When an ambulance does attend to a patient, It is also recognised that not every patient will require transport to the ED. Paramedics can now safely manage patients in the community by utilising “see and treat” and “see, treat and refer” appropriate care pathways. Examples of appropriate care pathways (ACPs) include referral to:

- The General Practitioner (GP)
- A minor injury unit
- A respiratory nurse
- A frail / elderly assessment unit
- A district nursing team
- A diabetic nurse specialist

1.4 Accessing these referral pathways will ensure the patient receives the most appropriate care at the right place at the right time. Attending paramedics should be mindful that inappropriate transport to an ED may not be in the patient’s best interests. Inappropriate ED attendance may lead to a poor patient experience and also an increased risk of contracting a hospital acquired infection.

1.5 This guideline is designed to assist paramedics with their clinical decision making. By supporting paramedics to safely refer patients to the most appropriate care, patient experience is enhanced, paramedic confidence is increased and patient safety is maintained.

1.6 Employing this guideline will also result in a reduction in ambulance utilisation and will ensure ambulances are available for genuine life threatening emergencies. Demand on local ED’s will also be reduced.

1.7 The guideline also offers guidance to staff regarding patients who refuse treatment or transport despite there being a clinical need.

2.0 Principles of Consent and Mental Capacity

Patients have fundamental legal and ethical rights in determining what happens to their own bodies. Valid consent to treatment is therefore central to all forms of healthcare. Seeking consent is also a common courtesy between health care professionals and their patients.

2.1 The Department of Health and Social Services and Public Safety (2003) and the Department of Health (2001) offer the following guidance regarding consent.

- It is a general legal and ethical principle that valid consent must be obtained before commencing an examination or starting treatment. The principle reflects the right of the patient to determine what happens to their own bodies and is a fundamental part of good practice.
- The professional providing the treatment or care is responsible for ensuring that
the patient has given valid consent before treatment or care begins.

• For consent to be valid, it must be given voluntarily by an appropriately informed person (the individual or where relevant someone with parental responsibility for a young person under the age of 18) who has the capacity to consent to the intervention in question. The patient should be informed of the proposed clinical intervention or assessment and advised of all the facts and potential risks associated with it. Consent generally remains valid unless it is withdrawn by the patient, however, new information must be given to the patient as it arises and consent regained.

• Coercion invalidates consent and care must be taken to ensure that the patient makes a decision freely. Coercion should be distinguished from providing the patient with the appropriate reassurance concerning their treatment or care, or pointing out the potential benefits of treatment or care for the patients' health and well-being.

• Capacity to consent is the ability to comprehend and retain information material to the decision, especially as to the consequences of having or not having the intervention involved. It is the ability to believe the information and to use and weight this information when making a decision whether to consent or withhold consent.

2.2 Seeking consent

Before you treat, examine or care for patients, you must obtain their consent. Valid consent can only be given by the patient. Patients can withdraw consent at any time. If there is any doubt, you should always check that the patient still consents to caring for or treating them. Consent must be continuous, if previously unexplained treatment is recommended to be carried out, further consent must be gained beforehand. Three basic tests are used to ensure consent is valid:

1. Does the patient have capacity? Are they able to comprehend and retain information material to the decision, believe it and use that information to make a decision while bearing the full consequences in mind?

2. Is the consent given voluntarily? Consent is only valid if given freely with no pressure or undue influence to accept or refuse treatment.

3. Has the patient received sufficient information? The patient must understand in broad terms, the nature and purpose of the procedure as well as the potential consequences of consenting to it or refusing to consent. The paramedic is responsible for ensuring that the patient has been provided with all the required information to make a decision. Failure of the paramedic to provide the required information may be regarded as a failure of that paramedic to carry out their duties.

Patients also need to be able to communicate their decisions. Care should be taken not to underestimate the ability of a patient to communicate, whatever their condition. Paramedics should take all steps that are reasonable in the circumstances to facilitate communication with the patient using interpreters or communications aids where appropriate, while allowing for the urgency of the situation.

Adults are presumed to have capacity but where doubt exists, the paramedic should assess the capacity of the patient to take the decision in question. The assessment and conclusions drawn from it should be documented on the PRF.

2.3 Refusal and withdrawal of consent

It is not uncommon in pre hospital healthcare situations for patients to refuse care or treatment. Although patients may refuse, there is still, in certain circumstances, an on-going moral duty and legal responsibility for paramedics to provide further intervention especially if there is a risk to life.

If an adult with capacity makes a voluntary and appropriately informed decision to refuse treatment, or decides to withdraw their consent at any time, the paramedic should stop the procedure, establish their concerns and explain the consequences of withdrawal. If however, withdrawing the procedure at that point may reasonably be seen to put the patient’s life at risk, the paramedic may continue until such risk no longer applies.

Withholding or withdrawing treatment is not an option for paramedics unless consent is
2.4 Patients without capacity

There is currently no mental capacity legislation in Northern Ireland; however the introduction of new legislation is anticipated in 2016 / 2017.

Adults, who usually have capacity, may, especially in emergency situations become temporarily incapacitated. The current draft mental health Bill states that a person lacks capacity if they are “unable to make the particular decision because of an impairment of, or a disturbance in the functioning of the mind or brain”. In any decision around non-transport and / or patient refusal, the patient must be assessed as to whether they have capacity i.e. that they are able to make their own fully informed decision.

It is important to consider if a patient is unable to make a decision because their mental capacity is affected by illness or disability, or the effects of drugs or alcohol (temporary incapacity).

Where a patient is incapacitated, the paramedic can act within the Doctrine of Necessity and is permitted to apply treatments that are necessary and no more than is reasonably required pending the recovery of capacity. This includes any action taken to preserve the life, health or wellbeing of the patient, and can include wider social, psychological or welfare considerations.

The Doctrine of Necessity is common law that allows clinicians to act “in the patient’s best interests”. The Health and Care Professions Council (HCPC) (2012) state in their standards of conduct, performance and ethics that the professional should act in the best interests of the patient but must also not do anything that will put the health, safety and wellbeing of the patient in danger. If the attending paramedic is acting in the patients best interests, this should be documented in full on the PRF.

A person is unable to make a particular decision if they are unable to do one or more of the following:

• Understand information given to them.
• Retain that information long enough to be able to make the decision.
• Weigh up the information available to make the decision.
• Communicate their decision; this could be by using sign language or even simple muscle movements such as blinking an eye or squeezing a hand. (if this is their normal method of communication).

For patients who have a clinical need but lack capacity and refuse to attend an appropriate facility, the paramedic should attempt to contact the GP / out of hours GP. The paramedic should make every effort to directly contact the GP, however, it is recognised that there will be certain occasions when EAC assistance will be required. The Police Service of Northern Ireland (PSNI) assistance should also be considered. The paramedic should remain on scene until the GP arrives unless the patient can be safely left in care of a responsible person and all the relevant documentation has been completed. EAC should be kept informed of any potential delays.

3.0 History taking and assessment

3.1 A thorough history and comprehensive patient assessment are vital when referring on to another health care professional or deciding that a patient requires no onwards referral. Paramedics should refer to both their ambulance service training and Association of Ambulance Chief Executives (AACE) and Joint Royal Colleges Ambulance Liaison Committee (JRCALC) UK Ambulance Service Clinical Practice Guidelines 2013. Both the patient history and assessment should be clearly documented on the PRF. A number of tools including the national early warning score are available on the back of the PRF to assist with clinical decision making.

3.2 Any clinical assessment must consider what the abnormal clinical signs are in relation to the patient’s normal presentation.

3.3 A discussion should always take place with the patient and (with their consent) relatives/carers about the most appropriate care plan for the patient. The patient’s choice should be respected if they are assessed as having capacity.

3.4 Following a clinical assessment, the patient may not travel to hospital for a number of reasons:
• The patient refuses.
• A&E Transport not required / Patient making own way.
• Patient referred to an appropriate care pathway.
• Patient referred to non-emergency ambulance for transport.
• No further clinical intervention required following assessment.

4.0 Documentation

4.1 Thorough documentation and evidence of clinical decision making are essential. As described in the section on consent, the patient (and their family / friend if appropriate) should be involved in the decision making process. Documentation MUST always be full and comprehensive and per NIAS PRF completion guidance and include:

• Details of all clinical assessment, examination and history taking.
• Documentation of any advice given to the patient / carer / relative / responsible person. This advice should be specific to the patients presenting complaint.
• Documentation of any referral made and name of person / unit accepting the referral
• Documented expected response time of other attending professionals if appropriate e.g. PCS crew for transport or GP / Health Care Professional for home visit.
• Where a patient refuses treatment / transport, then there should be clear documentation as to why the patient refused and if they have capacity. The patient must be made fully aware of the consequences of their refusal and this should also be documented on the PRF.
• Document whether patient has been left in care of a responsible person.
• The content of the patient report form should be explained to the patient / family / friend.
• A copy of the PRF should be left with the patient.

5.0 Patient Handover and Documentation

5.1 All referrals must be documented on the PRF.
5.2 A copy of the PRF should be left with the receiving staff or patient.

6.0 General principles for patients who are not transported or are referred.

6.1 The concepts of consent and capacity should always be considered.
6.2 There will be occasions when this guideline will be used in conjunction with other clinical guidelines (both local and national). There are now a range of appropriate care pathway guidelines that can be used in association with this guideline.
6.3 Thorough clinical assessment and robust documentation is required for all patients including those who are either not transported or are referred. If a patient does not consent to any part of this assessment, this should also be documented on the PRF.
6.4 Where a patient is not transported or has been referred to an appropriate destination or for home assessment by another healthcare service, they (and their family / friend if appropriate) should be involved in the decision making process. The patient report form should be left with the patient and the paramedic should explain the content of the form to the patient ensuring that they understand it.
6.5 Where a patient is not transported or has been referred to an appropriate destination, they should ideally be left in the care of a responsible person. The paramedic should use the following characteristics to help decide if someone can be defined as a “responsible person”:

• Has access to a telephone
- Understands what has happened to the patient and what it is the paramedic is trying to achieve.
- Is able to supervise the patient until either the patient can self-manage or they have accessed other forms of healthcare.
- Knows the patients GP contact details (or contact details of the ACP if the patient has been referred e.g. the address if a MIU)
- Is able to communicate with the emergency services to recall the ambulance if required.

It is acknowledged that it is not always possible to leave a patient in the care of a responsible person. Where this is the case, the responding crew should make every attempt to make the patient as safe as possible, e.g. calling relatives and asking them to visit or ensuring that the patient has access to their Careline necklace / bracelet where one is available.

6.6 If in any doubt about a patient’s condition then the patient should be encouraged to travel to hospital.

6.7 If a patient insists on being transported to hospital even though there is no clinical need for an ambulance, their wish should be respected. Paramedics should feel confident to have a discussion with the patient regarding the appropriateness of using an emergency ambulance. Paramedics may suggest alternative forms of transport such as using their own car where this is appropriate.

7.0 Refusal to Travel / Refusal of Referral

7.1 It is not uncommon to find patients who refuse treatment or admission to hospital, despite a clear clinical need being identified by the attending paramedics. These patients should be regarded as high risk. If, despite reasonable persuasion, the patient refuses treatment, it is not acceptable to leave them in a potentially dangerous situation without any access to care or follow up.

7.2 Patients refusing treatment / transport should be assessed for mental capacity. Where a patient lacks the capacity to make an informed decision, the paramedic may act under the common law of “doctrine of necessity” to effect conveyance dependent upon the circumstances and condition of the patient. The PSNI can be requested via EAC if required.

7.3 EAC should be informed regarding any patients who have capacity and are adamantly refusing treatment / transport despite there being a clear clinical need. The patient should be left in the care of a responsible person. Documentation should address any significant red flag signs or symptoms and also offer further advice on what the patient should do should their condition deteriorate after the paramedic has left. A copy of the PRF should be left with the patient / responsible person. The form should be signed by the attending paramedic and patient / responsible person. In the case of double crewed vehicles, it is advisable that both members of staff sign the form. If there is no responsible person on scene, the paramedic should contact the next of kin / family friend and request their attendance. The responsible person should be instructed to re-call the ambulance service or seek other medical assistance if appropriate should the patient’s condition deteriorate.

7.4 If the patient is in a public place, they should be left in the care of a responsible person. That person should be advised to take the patient home or to a place of safety

7.5 The paramedic should make attempts at accessing other appropriate forms of care e.g. the patients GP. Documentation should address any significant signs and symptoms and also offer further advice on what the patient should do should their condition deteriorate after the clinician has left. A copy of the PRF should be left with the patient / responsible person. The form should be signed by the paramedic and the patient / responsible person unless they refuse to sign it. In the case of double crewed vehicles, it is advisable that both members of staff sign the form. The responsible person should be instructed to re-call the ambulance or seek other medical assistance if appropriate should the patient’s condition deteriorate.

7.6 If there is no-one willing to take responsibility for the patient and the patient is incapable of leaving the scene unaided or concern is felt for the patient’s welfare, the crew should consider police assistance.
7.7 Where a patient is reluctant to be conveyed to a hospital, the clinical needs of the patient must determine the degree to which staff attempts to persuade the patient to travel. It is therefore essential that a thorough patient assessment is completed. It may be appropriate to take the patient to an ACP e.g. Minor Injuries Unit.

7.8 The mechanism of injury or history of medical presentation must be clearly recorded, even where there is no apparent injury. If the patient has been involved in a significant incident where there is clear potential for an injury they should be advised to attend ED. This may not necessarily mean transport via ambulance. It may be appropriate for the patient to make their own way.

7.9 For any patient who refuses either treatment or transport, they should be made fully aware of the potential consequences of their refusal. This should be documented on the PRF.

7.10 Ambulances are a valuable but limited resource that should only be used for genuine emergencies. If operational crews feel that they have been called with the sole aim of transporting the patient home, then other options should be explored and consideration given for requesting the PSNI.

7.11 The paramedic should always keep EAC informed of any delays on scene.

8.0 Patients in transit who refuse further care

8.1 If the patient either recovers during transit or changes their mind and is adamant that they wish to leave the ambulance, the paramedic should make every attempt to persuade the patient to continue to the hospital and not leave the vehicle. The paramedic should explain the reasons why they need to continue the journey and if necessary assess the patient’s mental capacity while doing this.

8.2 If the patient does not have any mental capacity issues or a life threatening condition and is capable of leaving the vehicle without assistance and is adamant that they wish to leave the ambulance, then the crew should park when and where safe to do so and allow the patient to find alternative transport home. The paramedic should complete the PRF documenting the occurrence. EAC should be informed.

8.3 If the patient demonstrates any of the following:

- Mental capacity issues / Life threatening condition
- Unable to leave the vehicle without assistance
- Attempting to leave a moving vehicle
- Insisting on leaving the vehicle where the area is unsafe or there are no other easily accessible transport networks

The crew should park the vehicle when and where safe to do so and inform EAC that PSNI assistance is required. If the patient leaves the vehicle, the crew should attempt to remain in contact with the patient providing it is safe to do so.

8.4 On rare occasions where a patient becomes violent or aggressive during transit, there may not be time to find a suitable parking place. If the crew feels their personal safety is in jeopardy, then the driver of the vehicle should carry out an emergency stop. PSNI assistance should then be requested.

9.0 A&E transport not required / patient making own way

9.1 Following assessment and treatment of a patient it may be apparent that attendance at hospital is not required and/or the patient is able to make their own way. Once the paramedic has established that no clinical intervention or further assessment/monitoring is required during transport, it is acceptable for paramedics to suggest alternative means of transport. Paramedics should not get involved in confrontation and if the patient has no other form of transport available, then the crew should transport by ambulance.

9.2 Where a patient is making their own way to ED or an appropriate care destination, they should ideally be left in the care of a responsible person. The patient report form should have clear documentation of patient assessment, diagnosis and referral pathway. Significant red flag signs/symptoms should have been addressed and advice given in relation to what the patient should do should their condition deteriorate. This should be documented on the PRF and a copy of the PRF should be given to the patient.
10.0 Rapid Response Vehicle (RRV) paramedic referral for non-emergency transport.

10.1 There are occasions when an attending RRV paramedic decides that a non-emergency vehicle is suitable to transport the patient to hospital. On these occasions, the paramedic should satisfy themselves that no clinical intervention or assessment / monitoring will be required during transport. The patient report form should have clear documentation of patient assessment, diagnosis and referral pathway. Significant signs / symptoms should have been addressed and documented on the PRF.

10.2 The paramedic should contact EAC on 02890 404040 and advise the EMD / Regional Pressures Coordination Centre (RPCC) call taker that they would like to book an ambulance via the Health Care Professional pathway. The EMD / RPCC call taker will ask a series of questions to ascertain the following information:

- Original call number
- Time frame for ambulance to arrive
- Does the patient need to travel alone?
- Destination hospital
- Name of patient
- Patient telephone number
- Any other important information

10.3 Once the call has been accepted, the paramedic can leave scene. The patient should be left in care of a responsible person and have received advice on what to do should their condition deteriorate. The patient / responsible person should also be given a copy of the patient report form. On occasions, the patient may be alone and it is not possible to leave them in the care of a responsible person. The paramedic should use clinical judgement to decide if it is safe for the patient to be left alone. This decision and the reasons for the decision should be documented on the PRF.

10.4 If the RRV paramedic decides that an accident and emergency ambulance is required to transport the patient, then the RRV paramedic should remain on scene until this vehicle arrives.

11.0 No further clinical intervention required

11.1 It is not uncommon for NIAS paramedics to identify patients where no further clinical interventions are required and transporting the patient to ED or referring the patient to an ACP would not necessarily be in the patients best interests. The paramedic should exercise caution, recognise their own ability and act within their scope of practice. After comprehensive history taking and a thorough patient assessment, the patient should be left in care of a responsible person and have received appropriate advice on what to do should their condition change. The patient / responsible person should also be given a copy of the patient report form.

11.2 On occasions, the paramedic may identify a patient whereby no onward referral is required but there is no responsible person available. The paramedic should use clinical judgement to decide if it is safe for the patient to be left alone. This decision and the reasons for the decision should be documented on the PRF.

12.0 Referral Pathway Guidelines

12.1 Not every call to the ambulance service will require an ambulance response. Experienced clinicians working on the Clinical Support Desk will be able to utilise the “hear and refer” strategy. Hear and refer involves the clinician identifying suitable calls and undertaking a comprehensive telephone consultation. On occasions this may still result in the clinician deciding that an ambulance is appropriate however, for the majority of cases, the clinician will recommend that the patient makes their own way to an appropriate care pathway e.g. the local pharmacy or MIU.

12.2 There are a number of appropriate care pathways other than the ED that paramedics can access if appropriate. These include Minor Injury Units (MIUs), Frail / Elderly Units, Alcohol Recovery Centre, District Nursing Teams, Community Respiratory Nurses, Diabetic Specialist Nurses,
Palliative Care Teams and Falls Teams. As the Transforming Your Care programme evolves, further ACPs may be added. Where an ACP has been used, the responding clinicians should ensure that the correct MDT code has been used when clearing from the call.

12.3 Patients should be encouraged to make their own way to an ED or alternative destination where safe to do so. The paramedic must satisfy themselves that the patient is safe to use other forms of transport.

12.4 The paramedic must ensure that all patients are fully assessed before any decision is taken to transport or refer to an alternative destination. Paramedics should familiarise themselves with new ACPs by remaining current with Operational Updates.

12.5 EAC should be advised of all cases where a patient does not travel to hospital or travels to an alternative destination. The reason will be recorded on the call log and the call closed with the appropriate “Stop” code.

12.6 If, during handover, clinical staff at an ACP e.g. minor injury unit request NIAS staff to transport the patient to ED that request should be carried out and noted on the PRF and EAC informed.

12.7 Consideration should always be given to the local referral pathways available. Further information regarding referral pathways can be gained from EAC.

12.8 For all referrals the patient must consent to their information being passed on to another service and agree to the referral being made. This should be documented on the PRF.

13.0 High Risk Patients

Children

13.1 Because of their vulnerability, paramedics must exercise extreme caution if the patient is 16 years or under. Paramedics should have a lower threshold for transporting children. Considerations should be given for any safeguarding issues. Attempts should be made to contact the parent / guardian or their school if within school hours. If no one is willing to accept responsibility for the patient and they are incapable of leaving the scene unaided or there are welfare concerns then the PSNI should be requested. All children under the age of 5 should be transported to hospital or referred to an appropriate health care professional / ACP. The attending paramedic may not have access to important information about a child that could be accessed from hospital or primary care.

13.2 Where a child or the parent / guardian refuses treatment / transport, a thorough patient history and clinical assessment should be documented. The patient or parent / guardian should be given appropriate advice and a copy of the PRF left with them. Patients who have refused transport / treatment should sign the PRF. For patients under the age of 16 where the parent / guardian refuses to sign the form, EAC should be advised and will log it on the call log. The attending paramedic should give strong consideration for referral to the local safeguarding service (via the untoward incident reporting mechanism) or document the reasons why a referral was not necessary.

13.3 Where there are child safeguarding concerns, the child should be transported to ED. Any child safeguarding concerns should be clearly documented on the PRF and communicated verbally to the receiving clinician at hospital. The PSNI should be made aware via EAC and the guidance offered in the Child Protection Policy should be followed.

Intoxicated patients

13.5 Following assessment, it may be appropriate for patients to be discharged to the care of another responsible person. The patient should have a complete assessment that is documented and a copy of the patient report form left with the patient. Once the paramedic has satisfied themselves that the patient has no medical complaint or traumatic injuries, the patient may be left in care of the PSNI or another responsible person. Any patient with a reduced level of consciousness should be transported to the ED.

Vulnerable adults

13.6 Vulnerable adults are those aged over 18 who receive or may need community care services because of a disability, age or illness. They are or may be unable to take care of themselves or protect themselves from significant harm or exploitation. Patients who are under the influence of drugs may also be vulnerable. The attending clinician should have a
lower threshold for transporting or referring this group of patients.

**Falls**
13.7 If a patient has fallen, the paramedic should satisfy themselves that the patient is uninjured and that their mobility is the same as their pre-fall presentation. All patients who have fallen but are uninjured should be assessed using this guidance, and referred to the appropriate falls service where this ACP is in place.

**The elderly**
13.8 The elderly often present atypically, therefore the paramedic should have a lower threshold for transporting the patient or referring to an appropriate professional.

**14.0 Healthcare Professional calls**
14.1 Healthcare professionals (HCPs) often request ambulance assistance to transport patients to appropriate facilities. On occasions, the HCP may not have seen the patient and the referral was made based on a telephone consultation. There are times when the paramedic finds that the patient presents differently to what was described to the HCP. It is appropriate for the paramedic to contact the HCP to either confirm the original referral pathway or arrange a new pathway if appropriate. It is not necessary to contact the HCP should the patient require emergency transport to the ED or specialist facility such as the cath lab.

14.2 If a HCP for example GP, district nurse or other professional has advised a patient to call an ambulance and it is subsequently established that an emergency ambulance was not appropriate. The paramedic should then contact the original referrer in order to mutually agree an action plan. It may be appropriate for the patient to use an alternative means of transport.

**15.0 Clinical Support desk**
15.1 The clinical support desk (CSD) is staffed by experienced pre hospital clinicians. The role of the CSD is threefold:
1. To undertake patient consultations over the phone and perform a thorough history taking assessment. This is also known as hear and treat / hear and refer.
2. To provide a reassessment of calls that on occasion have been incorrectly graded by the Advanced Medical Priority System (AMPDS)
3. To provide clinical advice to frontline staff and to sign post staff to referral pathways in their local area.

**16.0 Communicating revised / New local guidelines**
16.1 Many referral pathways and agreements have been established with other health professionals. When each new guideline is agreed / revised, it will be communicated through a range of media such as:

- Newsletters
- Staff memos
- Bulletin on MDT
- C3 messages
- Email
- Intranet
- Clinical Support Officers
- Divisional Training Officers
- Annual refresher training
Appendix A. Examples of patient presentations whereby transport is strongly recommended or clinical advice should be sought.

**Airway problems** – even if the patient appears well

**Breathing problems** – if accompanied by significant (red flag) symptoms e.g. haemoptysis or abnormal observations

**Cardiac chest pain** - or any undiagnosed cardiac arrhythmia which results in patient compromise.

**Acute confusion**

**Abdominal pain** – unless clear diagnosis evident e.g. UTI

**Seizures / fits** – first presentation fits, serial fits or eclamptic fits should all be transported.

**Falls with suspected fracture** – unless below elbow / knee fracture where the patient can manage their pain and have an appropriate means of transport

**Acute onset of headache** – Consider a sub arachnoid haemorrhage in patients presenting with an acute “thunderclap” headache.

**Burns** - Partial / full thickness burns over 5% or burns to the face / hands / feet / genitals should be transported to an appropriate unit.

**Head injuries** - where the patient is under the influence of drugs / alcohol and GCS is less than 15/15. Patients being treated with warfarin and have sustained a head injury should be treated as a medical emergency.

**Children** - who have been seen by a health care professional in the previous 24 hours and who are experiencing an exacerbation of symptom's or whose parents remain concerned should be transported to an appropriate facility.
References

Association of Ambulance Chief Executives Joint Royal Colleges Ambulance Liaison Committee (2013) *UK Ambulance Services Clinical Practice Guidelines*. University of Warwick


Transforming Your Care (2011) *A Review of Health and Social Care in Northern Ireland*.

Glossary

AACE – Association of Ambulance Chief Executives
ACA – Ambulance Care Assistant
ACP – Alternative Care Pathways
ASAM – Ambulance Service Area Manager
CSD – Clinical Support Desk
CSO – Clinical Support Officer
CSR – Comprehensive Spending Review
DHSSPS – Department of Health, Social Services and Public Safety
DTO – Divisional Training Officer
EAC – Emergency Ambulance Control
ED – Emergency Department
EMD – Emergency Medical Dispatcher
EMT – Emergency Medical Technician
GP – General Practitioner
HCP – Health Care Professional
HCPC – Health and Care Professions Council
ICV – Intermediate Care Vehicle
JRCALC – Joint Royal Colleges Ambulance Liaison Committee
MIU – Minor Injury Unit
NIAS – Northern Ireland Ambulance Service
NICE – National Institute for Health and Care Excellence
PEWS – Pre Hospital Early Warning Score
PCS – Patient Care Service
PRF – Patient Report Form
PSNI – Police Service of Northern Ireland
RATC – Regional Ambulance Training Centre
RRV – Rapid Response Vehicle
SAI – Serious Adverse Incident
SO – Station Officer
UIR – Untoward Incident Report
Welcome to the first NIAS clinical newsletter which we hope you will find useful. We would encourage all staff to contribute and if you have any case reviews or articles of interest that you would like to share, please send them to ciaran.mckenna@nias.hscni.net. Thanks to Charlie McCourt, Mike Patton, Davy McCartney, Orla O’Neill and Jonny Noble for their contributions to the first edition.

We would like to give the newsletter a short, snappy and witty name. For your chance to win a prize, send your suggestion to Jonny Noble at Jonny.Noble@nias.hscni.net by 30th Nov 2016.

In this Newsletter you will find articles on the following:

- Rhabdomyolysis – A Consideration in the Management of Falls? ............................ 2
- Pulmonary Embolism................................ 3
- The National Early Warning Score .......... 3
- COPD and Non Invasive Ventilators........... 5
- Frail / Elderly Case Review ..................... 6
- Primary Percutaneous Coronary Intervention (pPCI) ........................................................ 7
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- Female Genital Mutilation (FGM) .......... 9
- Hypoglycaemia and Sulfonylureas .......... 10

Clinical Support Officer Mike Patton; Hospital Ambulance Liaison Officer Jonathon Hadfield and Enhanced Care at Home Lead Diane Wilson at a recent staff engagement event in the Ulster Hospital.
Rhabdomyolysis – A Consideration in the Management of Falls?

What is Rhabdomyolysis?

Rhabdomyolysis is a potentially life-threatening clinical syndrome caused by striated (skeletal) muscle injury that results in the release of intracellular contents into the extracellular fluid. Severity is dependent on the nature of the underlying cause and the quantity of muscle involved. Injury to muscle resulting in the destruction of myocytes causes their contents, including potassium, phosphate, myoglobin and creatinine kinase (CK) to leak into the circulation. Clinically, rhabdomyolysis is identified using creatinine kinase (CK) levels.

Diagnosis is usually made by measuring these released substances in either plasma or urine. Injury can be reversible or irreversible, potentially leading to significant morbidity including renal failure or death.

While there are many causes of rhabdomyolysis, the most common include direct muscle injury from trauma, drug abuse (including alcohol, cocaine and narcotics), excessive physical exercise, prolonged state of immobility, compression, and vascular occlusion to blood vessels supplying blood flow to skeletal muscle, thus causing cellular damage.

<table>
<thead>
<tr>
<th>Physical Causes</th>
<th>Non-Physical Causes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trauma &amp; Compression</strong> - RTC, prolonged immobilisation, prolonged confinement, crush injury</td>
<td><strong>Toxins</strong> - Alcohol, Amphetamine, CO, Cocaine, Corticosteroids, Ectasy, Heroin</td>
</tr>
<tr>
<td><strong>Occlusion or Hypoperfusion</strong> - Embolism, thrombus, vessel clamping during surgery, use of tourniquets</td>
<td><strong>Infections</strong> - Herpes virus, HIV, Legionella, Streptococcus</td>
</tr>
<tr>
<td><strong>Excessive Muscle Activity</strong> - Exercise, seizures, overexertion, tetanus spasms</td>
<td><strong>Electrolyte Imbalance</strong> - Hypokalaemia, Hypocalcaemia, Hyponatremia</td>
</tr>
<tr>
<td><strong>Electrical Current</strong> - High voltage injury, lightening, cardioversion</td>
<td><strong>Endocrine Disorder</strong> - Hypothyroidism, Ketoacidosis</td>
</tr>
<tr>
<td><strong>Hyperthermia</strong> - Exercise, High ambient temperature, malignant hyperthermia</td>
<td><strong>Autoimmune Disease</strong> - Polymyositis, Dermatomyositis</td>
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Rhabdomyolysis in Falls

The cost to the NHS due to falls is around £2.3 billion per year (NICE 2013) and falls represent a significant proportion of calls to the Ambulance Service.

As can be seen above prolonged immobilization is a cause of rhabdomyolysis, this immobilization can be as a result of an accidental fall with a prolonged period on the floor.

There are no specific guidelines for when rhabdomyolysis is likely to become an issue to those that
have suffered a fall. There are many variables i.e. the duration the patient has been lying on the floor, the type of surface, age, how much they have moved whilst on the floor, previous renal failure, hydration status and other injuries suffered. The NIAS Falls ACP will soon be updated to specify an exclusion criteria of greater than 4 hours duration lying on floor.

Management

The management of symptomatic rhabdomyolysis (or with acute renal failure) should be managed in a hospital environment. The focus of hospital based care is upon early fluid administration to prevent the progression to acute renal failure. Current pre-hospital guidelines (JRCALC 2016) recognises the risk of rhabdomyolysis in patients presenting with heat stroke and provides guidance in the management of crush injury (refer to page 393 JRCALC 2016 Intravascular Fluid Therapy)

In conclusion, and against the backdrop of referral pathways, complications such as rhabdomyolysis should be considered by pre-hospital clinicians, otherwise the risks of this life-threatening condition could be easily overlooked.

References

E Nellist, K Lethbridge; Journal of Paramedic Practice 5(8); 442-446 (Aug 2013)

Vanholder et al, 2000; Huerta-Alardin et al, 2004; Richey, 2004

Pulmonary Embolism

Credit: Thanks to Charlie McCourt (RRV paramedic, Omagh) for submitting this article.

A Pulmonary Embolism (PE) is a blockage of an artery in the lungs caused by a substance that has travelled from elsewhere in the body through the bloodstream. PEs are responsible for approximately 25,000 deaths each year within the UK.

The National Early Warning Score

The National Early Warning Score (NEWS) was introduced with the new Patient Report Form (PRF). The Royal College of Physicians recommended that NEWS should be used by ambulance service clinicians when undertaking prehospital assessment of acutely ill patients, however use of NEWS within NIAS remains low.

Using NEWS can improve:

- The assessment of acute illness
- The detection of clinical deterioration
- The initiation of a timely and competent clinical response

NIAS clinicians should consider using NEWS for patients who present with an acute illness especially where patients are being left at home or referred to an Appropriate Care Pathway.

The NEWS should not be used in children (ie, aged <16 years) or women who are pregnant because the physiological response to acute illness can be modified in children and by pregnancy.

References

PE risk factors may include the following:

- Obesity
- Smoking
- Reduced mobility
- Recent long distance travel
- Recent surgery or surgery within the last 4 months
- Oral contraceptive and or chronic use of same
- Congenital heart disease
- Congestive cardiac failure
- Chronic obstructive pulmonary disease
- Hypertension
- Proven or previous PE
- Malignancy
- Fractures
- Pregnancy especially post Caesarean section
- Intravenous drug administration
- Lifestyle i.e. IV/IM drug use
- Unresponsive to oxygen therapy
- Pyrexia of unknown origin
- Swollen and/or hot/tender calf muscles
- History of dry non-productive cough
- Increased shortness of breath on exertion
- Dizziness/Fatigue
- Delirium/confusion

Early recognition and treatment is the key to survival. As pre-hospital healthcare providers it is imperative that a good patient-focused history is undertaken and recorded. We also need to have a high index of suspicion that the patient may be having a PE especially if any of the following clinical presentations are present:

- Sinus tachycardia
- Chest pain
- Acute shortness of breath
- Cyanosis
- Decreased SpO2 in the patient that has clear breath sounds on auscultation
- Severe hypoxia with SpO2 < 90%

On acquiring the 12 Lead ECG the most common diagnosis will be a sinus tachycardia.

A 12 lead ECG showing a positive S1 Q3 T3 pattern is another helpful tool to help guide our diagnosis of a PE. This pattern is ONLY seen in up to 20% of ECG’s. Therefore, this is only helpful if other the RIGHT clinical signs and history are present and suggestive of a PE. This pattern has been seen in many young healthy adults. A negative S1 Q3 T3 pattern on the ECG does NOT rule out a PE.

Also seen on the ECG can be a Right Bundle Branch Block. These are all indications that there is a strain on the right side of the heart.

**S1 Q3 T3**
Clinical Newsletter

COPD and Non Invasive Ventilators

NIAS clinicians will encounter patients who are receiving non-invasive ventilation at home. Non-invasive ventilation (or NIV) is simply the artificial ventilation (full or partial) of a patient without having to intubate or perform a tracheostomy. It is usually delivered via a nasal or face mask. NIV aims to support ventilation and improve the patient’s ventilatory function thus improving symptoms and increasing lifespan.

There are multiple machines available and they are known by a number of names including NIV, NIPPV, BiPAP, NIPPY and Pressure support.

We have had a request from the Community Respiratory Teams to bring the ventilator to hospital for any patient requiring transport.

Examples of some of the machines and mask you may encounter include:

The British Medical Journal clearly states:

“Pulmonary embolism (PE) is a life-threatening condition resulting from dislodged thrombi occluding the pulmonary vasculature; right heart failure and cardiac arrest may ensue if not aggressively treated”.

References

JRCALC 2016 Pulmonary Embolism page 22 Management

http://www.mdcalc.com/wells-criteria-for-pulmonary-embolism-pe/


http://cks.nice.org.uk/pulmonary-embolism

https://www.youtube.com/watch?v=SzsQWIMYbN8

Frail / Elderly Case Review

In February, an East Country crew responded to an elderly gentleman complaining of abdominal pain, diarrhoea and vomiting. Following assessment, the crew decided that a referral to BCH Direct was appropriate. The referral was accepted by the doctor and the patient was transported to the unit. Following assessment in the unit, the patient was diagnosed with a perforated bowel and subsequently died. An initial case review identified that transport to the ED would have been more appropriate for this patient.

What Can We Learn?

Gastrointestinal perforation is a hole that develops through the wall of the oesophagus, stomach, small intestine, large bowel, rectum, or gallbladder. It can lead to peritonitis which is an inflammation of the membrane that lines the abdominal cavity and if left untreated, it can be fatal. This condition is a medical emergency.

Causes of gastrointestinal perforation include:
- Appendicitis
- Cancer
- Crohn’s disease
- Diverticulitis
- Gallbladder disease
- Peptic ulcer disease
- Ulcerative colitis
- Penetrating / blunt trauma

Symptoms of gastrointestinal perforation include:
- Severe abdominal pain
- Chills / rigors
- Fever
- Nausea / vomiting
- Fatigue
- Passing less urine / stools
- Shortness of breath
- Dizziness
- Tachycardia

Subtle signs of gastrointestinal perforation include a distended abdomen that may feel hard. The patient will complain of abdominal tenderness which may increase on palpation but ease when the patient lies still. The symptoms are similar to gastroenteritis and therefore a thorough history and high index of suspicion are vital especially in the elderly patient.

References

**District Nursing Case Review**

In February 2016, the District Nursing pathway was introduced and there have been 21 referrals to the end of May. There have been a small number of failed referrals and one example related to a district nurse who was unable to manage a dislodged PEG tube in the community.

**What are PEG tubes and why might some patients still require hospital admission?**

Percutaneous Endoscopic Gastrostomy (PEG) feeding tubes are now increasingly used in both children and adults who are unable to maintain adequate nutrition with oral intake. Indications for use include difficulties with oral intake often where obstruction to the upper airway or gastrointestinal tract makes passing a nasogastric tube difficult e.g.:

- Neurologically unsafe swallowing – acute stroke
- Failure of feeding – dementia
- Malignant bowel obstruction
- Head injury

One of the most common post-PEG complications is inadvertent removal or dislodgement. Hospital admission is required if the tube has been displaced for greater than 12 hours. This is because the tract can close within 24 hours. In addition, patients who have had a PEG inserted within the previous 3 weeks should attend the ED. This is because they are at an increased risk of peritonitis and therefore are likely to require imaging, antibiotics and a surgical review.

**To make a district nurse referral, contact EAC on 02890 404021**

**References**


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**Primary Percutaneous Coronary Intervention (pPCI)**

Altnagelvin Area Hospital Primary PCI telephone number – **02871 611300**

Royal Victoria Hospital Primary PCI telephone number – **02890 324444**

Please ensure you have the correct and direct contact number for the Cath lab. Remove old numbers. At times the Cardiac ward, and not the Cath lab, has been contacted when an ECG has been faxed (RVH). Please check the number in vehicle mobile.

An excellent opportunity for CPD in the Cath lab is available. We are keeping the PCI team busy with emergency primary patients, and Paramedics/Technicians are welcome to observe the patient journey after our diagnosis, treatment and referral to the pathway. Please contact your local DTO/CSO for details.
Clinical Newsletter

Posterior Infarcts

Since training in posterior lead placement occurred on 2015/16 PP course, our two PCI centres, Altnagelvin Area Hospital and Royal Victoria Hospital, have both reported a good success rate in clinical diagnosis for referrals with this presentation. This is excellent for patients who present with this pathology, who before would have been taken to the ED. Well done on your clinical evaluation and diagnosis.

The First Choice of Analgesia in Acute Coronary Syndromes

Recent Quality Improvement (QI) data suggests some of our clinicians are treating Acute Coronary Syndromes (ACS) with IV Paracetamol, and not Morphine Sulphate.


There is NO literature/evidence in the use of IV Paracetamol in Acute Coronary Syndromes. Paracetamol can be used if there is a contraindication to Opiates or Hypotension.

Morphine has a number of beneficial effects in the management of an Acute Coronary Syndrome.

Morphine relieves symptoms of chest pain, reduces preload (good venodilator), reduces anxiety, and it also enhances sympathetic tone which further reduces work load of heart. Our two pPCI centres (RVH & AAH) always advocate use of an Opiate and anti-emetic in STEMI management.

Pain Scoring

Simple pain scoring (0-10) should be undertaken in all patients who are in pain. We encourage clinicians to document pain scoring in the relevant section on PRF (see picture).

Serial ECGs

It is well understood that some patients may have little or no changes on an initial 12 lead ECG, but can subsequently develop further progressive changes in their ECG which might change the decision on destination. If at any stage a non PCI patient is being transported to an ED and the patient develops evidence of acute STEMI, the crew must immediately contact the cath lab again to review the destination decision, transmitting a new ECG as required. (NIAS STEMI Care Pathway, v4, 2016).

This vigilance is regularly demonstrated by crews where patients are initially not accepted on to the pathway for pPCI, and directed to local ED. Where ECG diagnostic criteria are not met initially, but pain persists, obtain serial ECGs every 10 minutes. If all leads are removed after recording one 12 lead ECG for diagnosis, we may miss an evolving STEMI.
Female Genital Mutilation (FGM)

Female genital mutilation (FGM) is the partial or total removal of external female genitalia for non-medical reasons. FGM generally happens to girls aged 5 to 8, but it can happen at any age especially before getting married or having a baby. Some girls are babies when FGM is carried out.

FGM is also known as female circumcision, cutting or sunna and is often carried out for religious, social or cultural reasons. Girls from the Somali, Kenyan, Sudanese, Sierra Leonean, Egyptian, Nigerian, Eritrean, Yemeni, Kurdish and Indonesian communities are most at risk of FGM. FGM is a dangerous criminal offence and is regarded as a form of child abuse.

Diagnosing FGM

Unless disclosed by the patient, FGM can be extremely difficult to diagnose in the pre hospital environment. Clinicians should take a thorough history and be aware of the following:

- The patient is having difficulty walking, sitting or standing
- The patient spends longer than normal in the bathroom or toilet
- The patient is demonstrating unusual behaviour following an absence from school
- The patient may be particularly reluctant to undergo normal medical examinations
- The patient may ask for help, but may not be explicit about the problem due to embarrassment or fear.

Patients who have undergone FGM may also present with:

- Severe pain
- Haemorrhage
- Infections such as tetanus, HIV, or Hepatitis B and C
- Sepsis

FGM can result in problems which continue through to adulthood including:

- Difficulties urinating or incontinence
- Frequent or chronic vaginal, pelvic or urinary infections
- Menstrual problems
- Kidney damage and possible failure
- Cysts and abscesses
- Pain during sexual intercourse
- Infertility
- Complications during pregnancy and childbirth
- Emotional and mental health problems.

The Role of NIAS Clinicians

From October 2015, the FGM Act 2003 (as amended by section 74 of the Serious Crime Act 2015) introduced a mandatory reporting duty for all regulated health and social care professionals. Professionals must make a report to the police, if, in the course of their duties:

- They are informed by a girl under the age of 18 that she has undergone an act of FGM

OR

- They observe physical signs that an act of FGM may have been carried out on a girl under the age of 18.
Clinical Newsletter

In addition to contacting the PSNI, the attending clinician must also refer the patient to the children’s gateway team and complete an Untoward Incident Report (UIR)

The children’s gateway teams can be contacted on the following numbers

<table>
<thead>
<tr>
<th>Trust Area</th>
<th>Children’s Gateway Team Mon – Fri 0900-1700</th>
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<tbody>
<tr>
<td>Belfast</td>
<td>028 9050 7000</td>
</tr>
<tr>
<td>South East</td>
<td>0300 1000 300</td>
</tr>
<tr>
<td>North</td>
<td>0300 1234 333</td>
</tr>
<tr>
<td>South</td>
<td>028 3741 5285</td>
</tr>
<tr>
<td>West</td>
<td>028 7131 4090</td>
</tr>
</tbody>
</table>

The Regional Emergency Social Work Service (RESWS) should be contacted for cases that present out of hours. They are available 1700-0900 weekdays, 24 hours at weekends and bank holidays. Telephone: 02895 049999

Further information

For further information, the co-operating safeguarding children and young people in Northern Ireland can be accessed on: https://www.health-ni.gov.uk/publications/co-operating-safeguard-children-and-young-people-northern-ireland


Hypoglycaemia and Sulfonylureas.

Diabetes mellitus is a common chronic complex metabolic disorder characterized by high levels of blood glucose and caused by defects in insulin secretion and / or action. The pancreas doesn’t produce sufficient insulin to help glucose enter the body’s cells or the insulin that is produced does not work properly. There are two main types of diabetes:

- Type 1 diabetes is caused by an autoimmune destruction of the islet cells in the pancreas and reduced production of insulin.
- Type 2 diabetic patients generally have higher than normal blood insulin levels, but tissues become insensitive to it. There is thus a relative deficiency of insulin.

The 2013 and 2016 JRCALC guidelines specifically name the Oral Hypoglycaemic Agent (OHA) Glibenclamide as an indication for transfer to further care for diabetic patients who have had a hypoglycaemic episode. Glibenclamide is in a class of drugs known as Sulfonylureas. They are a class of oral medications that control blood sugar levels in patients with type 2 diabetes. Sulfonylureas are insulin secretagogues, which mean that they work by promoting endogenous insulin production in the beta cells of the pancreas. This endogenous stimulation may extend for up to 72 hours depending on the type of Sulfonylurea thus reducing the frequency of the dosage required by the patient. They are most suitable for people who are not overweight, as their mode of action (increase in insulin production and secretion) means that weight gain can be a relatively common side effect. Another side effect of OHAs is low blood sugar and recurrent
and prolonged hypoglycaemic episodes are a particular risk of Sulfonylureas especially during the first few days to first four months of use. Common Sulfonylureas include:

<table>
<thead>
<tr>
<th>Generic / Proper Name</th>
<th>Brand / Trade Name</th>
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</thead>
<tbody>
<tr>
<td>Glibenclamide</td>
<td>Daonil</td>
</tr>
<tr>
<td>Gliclazide</td>
<td>Diamicron</td>
</tr>
<tr>
<td></td>
<td>Diamicron MR (modified release)</td>
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<tr>
<td>Glipizide</td>
<td>Glibenese, Minodiab</td>
</tr>
<tr>
<td>Glimepiride</td>
<td>Amaryl</td>
</tr>
<tr>
<td>Tolbutamide</td>
<td>Tolbutamide</td>
</tr>
<tr>
<td>Chlorpropamide</td>
<td>Diabinese</td>
</tr>
</tbody>
</table>

Patients presenting with symptomatic hypoglycaemia should be treated in accordance with current JRCALC guidelines. Staff should be aware of the various Sulfonylureas and the potential danger of recurrent hypoglycaemic episodes and therefore have a lower threshold for transporting these types of patients to further care. These patients are likely to require glucose infusions and admission for further treatment and observation. The NIAS Diabetes Hypoglycaemia Referral Pathway will be updated in the coming weeks to include reference to OHAs. If you have any questions please contact your local CSO in the first instance.

References

http://www.diabetes.co.uk/
https://www.diabetes.org.uk/
http://www.diabetesnet.com/


NIAS Diabetes Referral Pathway


This is CPD

Reflect on how this newsletter may relate to, affect, or impact on your practice.

Ask yourself, was the newsletter interesting? Did the newsletter raise any questions for you? Has reading any article made you want to investigate further around a particular area?

Record these thoughts and any plans you have for further reading or action you plan to take as a result of your learning, and make note of how, when and where you plan to evaluate this.
The NIAS Quality Improvement Programme aims to enhance the care we deliver to our patients. Ultimately our aim is to deliver safe, effective and patient centred care.

The care bundles should be used in conjunction with JRCALC Guidelines.
Five areas of clinical practice currently fall under the QI programme, they are:

- Stroke
- Acute Cardiac Syndrome
- Cardiac Arrest
- Falls
- Hypoglycaemia

Each area has an associated “care bundle”. Care bundles are collections of interventions that when delivered together, result in better patient outcomes than when implemented individually. They are being used increasingly within healthcare to set standards for the delivery of care, performance reporting, and commissioning of services.

A care bundle is distinct in several ways from just any checklist about patients’ care. The elements in a bundle are best practices based on evidence, and all clinicians should know them. In routine clinical practice, these elements may not always be done in the same way, making patient care vary. A bundle, therefore, aims to tie them together into a cohesive unit that must be adhered to for every patient, every time.