Pre-Hospital Emergency Care Council

Medical Advisory Committee

Meeting Minutes 29/01/2015

| **Present** | **Apologies** | **Present** |
|---|---|---|
| Mick Molloy (Chair) | Jack Collins | Brian Power |
| David Hennelly | Cathal O'Donnell | Barry O'Sullivan |
| Gerry Bury | Séamus McAllister | Mark Doyle |
| Macartan Hughes | ~~Cathal O'Donnell~~ | Deirdre Borland |
| Niamh Collins | David Menzies | |
| Neil Reddy | Rory Prevett | |
| Ken O'Dwyer | David Irwin | |
| Martin O'Reilly | Declan Lonergan | |
| Gerry Kerr | Valerie Small | |
| Sean Walsh | | |
| Shane Knox | | |
| Shane Mooney | | |
| David O'Connor | | |
| Joe Mooney | | |
| Conor Deasy | | |
| Derek Rooney | | |

1. Chairs Business

The Chair welcomed Mark Doyle, Medical Advisor to the PHECC executive to the meeting.

Barry O'Sullivan informed the committee that approval has been given for the appointment of the Director's Position. He indicated that advertisements would be placed with the next few days.

2. Meeting Report and Matters arising

Resolution: That the meeting minutes of 27th November 2014 be approved.

Proposed: David Hennelly Seconded: Joe Mooney

Carried without dissent

3. CPGs

3.1 Mac CPG policy

The Chair introduced the amended CPG policy. Barry O'Sullivan pointed out that it is now stated that the Director together with the PHECC Medical Advisor or the Chair of MAC must sign all interim directives.

Macartan Hughes asked for clarity of the domain 'wider health service integration' in the priority matrix. It was explained that care may start and stop in the per-hospital environment or it may be continued as ED or hospital care therefore it would have a wider health service integration.

**Resolution**: That the medical advisory Committee recommend to Council the CPG Development Policy as outlined in the papers.

Proposed: David Hennelly Seconded: Niamh Collins

Carried without dissent

3.2 Brian Power indicated that there are a list of potential CPG topics for consideration. The prioritisation schedule as outlined in the CPG development policy will be circulated to all members for scoring.

3.3 Spinal Injuries

The Chair informed the group that a sub group will be established to focus on spinal injuries.

Ken O'Dwyer, David Menzies, Shane Mooney indicated their interest in the sub group membership.

Niamh Collins suggested seeking input from a spinal expert to the subgroup. Brian Power suggested Mark Dixon who has carried out extensive research in this area.

In light of the amount of international expertise Brian Power suggested a one day conference to get an informed view on the topic. Ken O'Dwyer cautioned that equipment be excluded from the terms of reference for the subgroup.

Niamh Collins suggested that C.P.R. Limerick be tasked to research the top research articles regarding this topic.

4. Standards of Operations

4.1 Transport of patients to Local Injury Units (LIUs) by ambulance. The Chair gave a background to this item. He indicated that a sub group will be established to identify the feasibility of the safe transport by ambulance to LIUs.

Barry O'Sullivan indicated that the safe transportation of patients to local injury units should become a priority for MAC and PHECC need to develop a position on this as a matter of urgency. Brian Power stated that he was in contact with Dr Gerry McCarthy, clinical lead of the Emergency Medicine Programme (EMP), who gave his support in principle for ambulance transports to LIUs however patient safety has to be a priority. Dr McCarthy suggested that a Consultant in Emergency Medicine with experience in LIUs should be involved in the PHECC deliberations.
Niamh Collins cautioned against following a UK model, where emergency department are now being under resourced*. David Hennelly agreed and cautioned that the impact of such policy should be carefully considered. Sean Walsh asked the sub group take into account the variance of clinical expertise in LIUs when considering the issue.

David Menzies, Niamh Collins, Macartan Hughes, Joe Mooney, David O'Connor, Valerie small, Gerry Bury agreed to be members of the sub group.
Part of the brief is to engage with the EMP to ensure that they are supporting any change in policy.

Gerry Bury asked that the impact to training be kept in mind and the general practitioner should be considered.
It was agreed that PHECC would adopt the EMP criteria for patients attending LIUs as the criteria for ambulance transports to LIUs.

* as Emergency department resources are re-allocated to ED avoidance programmes

The need to use ambulances to transport patients was queried. It was suggested that patients when identified at Control level should be requested to make their own way to an LIU. Brian Power informed the group that the Priority Dispatch Committee could not agree to implement an advisory for callers to make their own way to hospital and that this policy change will be subject to research.
In relation to AMPDS, Shane Mooney criticised the dispatch of APs to all maternity calls. The Chair indicated that this was an issue for the priority dispatch committee.

Shane Mooney asked that considerations be also given to the transportation by ambulance to Medical Assessment Units (MAUs). The Chair indicated that this was a matter for future consideration and not within the current ambulance transport to LIUs discussion.

4.2 Clinical Care at Events

The Chair informed the group that there was a lack of understanding of the role of clinical care at events.
Neil Reddy, Rory Privet and Joe Mooney agreed to be part of the sub group. Ray Carney, who has undertaken research in this area, was recommended as an external sub group member.
Neil Reddy asked that all correspondence relation to this topic be made available to the group.

5 Practitioner queries re CPGs and medications

The Chair gave a history of an issue raised by a GP in regard to the transportation of a patient who the practitioners and Gardaí deemed to be lacking capacity and refused to compel to transport.
A discussion ensued regarding consent, competency and legalities.
The Chair questioned if the individual case should be discussed by MAC. Martin O'Reilly indicated that the CPG has been questioned whether it authorises the use of restraint or force. He asked for clarity on this.

A directive issued by Cathal O'Donnell to NAS Staff was discussed. David Hennelly explained that the aim of the directive was to minimise the instances of a practitioner not treating a patient out of fear of consequences. Gerry Bury asked that the NAS consider removing the words "without their consent" from the directive.
Gerry Kerr indicated that he did not think there was any difficulty with the wording of the NAS directive.

Brian Power indicated that advice needs to be issued to practitioners as currently this grey area.
The Chair suggested developing an incapacitated patient CPG. David Hennelly suggested that this is a conduct issue for practitioner rather than something that should be catered for in a CPG.

Barry O'Sullivan will revert to the doctor involved to confirm that the CPG does not allow a patient to be compelled to travel or treated against their will. Mark Doyle agreed that that

this was a difficult area, however appropriate care being provided, with the best interest of the patient at the forefront, will rarely result in legal action.

6 Verification of Death

Brian Power introduced the draft (v0.2) verification of death policy with amendments from the previous meeting. Niamh Collins questioned the inclusion of checking for no heart sounds. This was determined to be a training issue.

Brian Power informed the committee that following agreement by MAC, this draft policy would be sent to the Dublin City Coroner for review and consultation would take place with An Garda Síochána prior to presenting the final draft version of the policy to Council for approval. Gerry Bury suggested that the ICGP also be informed of this development.

**Resolution**: That the Medical Advisory Committee recommend the draft verification of death policy to Council for approval, subject to consultation with the Coroners Society of Ireland beforehand.

**Proposer**: Conor Deasy **Seconded:** Derek Rooney
Carried without dissent

7 Strategic Plan

Macartan Hughes questioned the remit of the PHECC in developing a Physicians Assistants role. The Chair indicated that he will bring this up at Council.

8 AOB

Barry O'Sullivan informed the committee that he has asked the C.P.R. in Limerick be tasked to give critical appraisal of the current CPGs. He suggested that 30 CPGs per annum would be critically appraised.

The Chair asked for the group's consideration to move the MAC meeting to a quarterly day long. This would give the sub group an opportunity to progress. There was general agreement that the meetings should continue on a monthly basis.

Adult Tachycardia CPG – 'cardioversion if someone is symptomatic – return loop' to be looked at the next meeting.

Ken O'Dwyer, questioned the value of needle cricothyrotomy, is this a worthwhile intervention as the likelihood is that the obstruction will be below the level of insertion. Niamh Collins suggested widening the indication for this skill and asked for clarity as to the type of cricothyrotomy (needle and/or wide bore). It was agreed that this issue be prioritised through the CPG development priority matrix.

Shane Knox requested that the CPG be hyperlinked particularly when request to 'go to' a specific CPG. Brian Power indicated that currently this was not feasible due to work commitments in the office, however it is a project that will be looked at when resources become available in the future.

Next Meeting will be Thursday 26th March.

Signed: N Collins Date: 26/3/15

Pre-Hospital Emergency Care Council

The minutes of the Medical Advisory Committee 26/03/2015

| Present | Apologies | In attendance |
|---|---|---|
| Martin O'Reilly | Mick Molloy | Brian Power |
| Declan Lonergan | Seamus McAllister | Pauline Dempsey |
| Peter O'Connor | Sean Walsh | Deirdre Borland |
| David O'Connor | David Hennelly | |
| Shane Mooney | Mick Dineen | |
| David Menzies | Conor Deasy | |
| Shane Knox | Derek Rooney | |
| Niamh Collins | Gerry Bury | |
| Rory Prevett | Jack Collins | |
| Joe Rooney | Cathal O'Donnell | |
| Macartan Hughes | Valerie Small | |
| | David Irwin | |

1. **Chairs Business**

The Vice Chair welcomed assembled members and apologies were noted.

2. **Meeting Report – Thursday 29th January**

Niamh Collins asked the minutes in relation to LIUs be amended to read that 'as ED resources are allocated to ED avoidance programmes'.

**Resolution: That the meeting minutes of January 29th be approved subject to the inclusion the amendments listed**.

**Proposed:** Joe Mooney **Seconded:** David O'Connor

**Matters arising:**
The meeting was informed that the executive had advised Dr Skuce of PHECC's position relating to Capacity to Refuse Care.
Following a meeting with the Emergency Medicine Programme regarding the transport of patients to Local Injury Units, it was suggested that a Standard of Operations rather that a CPG may be more appropriate. It was also stated that there may be a need to follow local protocol with individual LIUs.
The subgroup will liaise with NAS as stakeholders through the development of this project. Niamh Collins asked that all stakeholders be included in the consultation process.

The palliative care subgroup have suggested that a GP must be contacted in order to prevent the unnecessary tasking of Gardaí to the home of an expected death.
The Dublin City Coroner has agreed to bring the verification of death process to his colleagues throughout the country and the Gardaí will also be informed of any developments.

## 3. 3. CPGs

### 3.1 CPG Prioritisation Criteria

The meeting was advised of a typo in the Tranexamic Acid priority schedule in the meeting papers (Pain/distress/anxiety very severe: should be 'x 2' and not 'x 5'). The corrected version was tabled at the meeting prior to the discussion. The vice chair introduced the replies from the prioritisation schedule and stressed her disappointment at the poor response rates. A discussion ensured regarding how to improve engagement from MAC members. It was suggested that members may not engage if they are not be sufficiently familiar with the topic. It was agreed that the timeframe for respondents would be extended to one month and also that the question would be include on the top of the report. C.P.R. should be given a timeframe for critical appraisal feedback.

#### 3.1.1 Tranexamic Acid

As Tranexamic Acid had a level (iii) priority it was designated to be addressed immediately the relevant CPG was included in the papers for deliberation. David Menzies gave a brief introduction his request to extend the indications for the administration of Tranexamic Acid. He suggested amending the entry point of the CPG to allow those who are not yet displaying symptoms of shock but with a significant mechanism of injury should be considered for Tranexamic Acid administration. He indicated that in St Vincent's University Hospital that traumatic haemorrhage that has a potential to develop into shock is an adequate rationale for administration of Tranexamic Acid.

#### 3.1.2 Shock from Blood Loss (trauma) – Adult CPG.

The initial discussion suggested that the name of the CPG may not reflect the clinical situation. It was agree to change it to **'Actual/Potential Shock from Blood Loss (trauma) – Adult'.**

It was felt that there were two possible entry points to the CPG;

i) Clinical signs of shock post trauma, and
ii) Mechanism suggestive of significant risk of haemorrhage.

Add a new decision box after Tranexamic Acid, 'clinical signs of shock' which will advise fluid administration.

The CPG will be amended be brought back for review as per the agreed process.

#### 3.1.3 Anaphylaxis

Anaphylaxis had a level (ii) priority. It was agreed to update the relevant CPGs and bring back for review. Antihistamine medications for paediatrics may require updating of the 7th Schedule.

#### 3.1.4 Pain Management

Pain Management had a level (ii) priority. It was agreed to update the relevant CPGs and bring back for review.

**3.1.5 Glycaemic Emergency**

Glycaemic Emergency had a level (ii) priority. It was agreed to update the relevant CPGs and bring back for review.

**3.1.6 FBAO (Cricothyrotomy)**

Cricothyrotomy had a level (ii) priority. It was agreed to update the relevant CPGs and bring back for review.

**3.1.7 Haemorrhage Control (Scalp staples)**

Scalp staples had a level (ii) priority. It was agreed to update the relevant CPGs and bring back for review.

**3.1.8 Thiamine**

Thiamine had a level (ii) priority. It was agreed to update the relevant CPGs and bring back for review.

**3.1.9 ICD Disarm**

ICD disarm had a level (ii) priority. It was agreed to update the relevant CPGs and bring back for review.

**3.1.10 Early Warning Score**

Early Warning Score had a level (i) priority. It was agreed that no action would be taken regarding progressing this item at this time.

**3.2 Tachycardia CPG**

In the absence of Gerry Bury, a concern was raised on his behalf; Amiodarone being indicated for a conscious patient is inappropriate.

David Menzies indicated that he felt the CPG was, whilst complex to teach, in the main fit for purpose.

Shane Mooney asked that a repeat Cardioversion be attempted if unsuccessful on first attempt.

As Amiodarone is indicated by the AHA and ERC as best practice for unstable ventricular tachycardia the committee supported its continued use by advanced paramedics.

The following suggestions were agreed;

Remove 'likely' from consider if VT box and add a new information box authorising an escalation of energy and subsequent cardioversion should the initial attempt be unsuccessful.

The CPG will be amended be brought back for review as per the agreed process.

In absentia, Gerry Bury also raised a concern about the indication for Amiodarone in the medication formulary. The indication as currently outlined 'Symptomatic Tachycardia (>150)' is too broad. It was agreed to insert 'ventricular' prior to tachycardia in the indications section.

## 4. Standards of Operations

Overview of the developments as follows;

### 4.1 Spinal Subgroup

The terms of reference of the Spinal Injury Sub Group were included in the meeting papers for approval. The following amendments were agreed;

i) Remove the restriction on date for the literature review; 'since 2000'

ii) Insert a 7th point; Integration with the wider healthcare services on spinal injury management.

**Resolution**

**That the terms of reference of the Spinal Injury Sub Group be approved subject to the agreed amendments.**

**Proposed:** Declan Lonergan **Seconded:** David Menzies

Brian Power indicated that a dedicated one day meeting focusing on spinal injuries, likely on the day of the May meeting will be held.

It was stressed that any decisions regarding future practice in relation to pre-hospital spinal injury management should be communicated to all stakeholders.

### 4.2 Local Injury Sub Group

The terms of reference for the group were included in the meeting papers.

Niamh Collins asked that those units not technically named LIUs are not excluded. It was suggested that the group define the current state of operation.

A fifth point was added to the terms of reference; Define ambulance transport decisions in general.

**Resolution**

**That the terms of reference of the Local Injury Unit Sub Group be approved subject to the agreed amendment.**

**Proposed:** Joe Mooney **Seconded:** Macartan Hughes

### 4.3 Clinical Care at Events Sub Group

The terms of reference for the group were included in the meeting papers.

A 9th point was added to the terms of reference; To explore the responsibility and authority of the statutory ambulance services once contacted by the event organiser/ clinical care service provider at an event.

**Resolution**

**That the terms of reference of the Clinical Care at Events Sub Group be approved subject to the agreed amendment.**

**Proposed**: Shane Knox **Seconded:** Shane Mooney

The vice chair suggested that an email be circulated to members requesting those interested self-nominate to committees.

## 5. AOB

5.1 Macartan Hughes asked that the situation where by EMTs at events are being prevented from transporting patients be looked at. This will be considered by the Clinical Care at Events Sub Group. It was suggested that a control room manager be invited to partake in this group.

5.2 Rory Prevett raised a practitioner request that shock be changed to haemodynamic instability for in the Midazolam medication formulary. It was agreed that this was a training issue.

5.3 Niamh Collins raised the query that the Pain Management CPG currently indicated that it is acceptable that both IV Morphine and IN Fentanyl may be administrated to the same patient. She raised a concern regarding the potential toxicity. Shane Mooney indicated that there were circumstanced where the current dosing regimen where not always sufficient. David Menzies indicated that if the patient is in sufficient pain to merit the administration of both it is clinically sound. Niamh Collins remained adamant that the practice of administering both morphine and fentanyl is unsafe.

DB 28/5 max dose. to their max dose.

5.4 Niamh Collins also asked the new patient health identifier will be launched this year and that MAC should be aware of any implications.

5.5 Richard Corbridge, CIO of HSE, should be considered to be invited to present to MAC.

5.6 David O'Connor raised a query from a practitioner requesting IO Lignocaine for non-arrests. It was confirmed that this would not be perused at this stage.

pursued.

Signed: _____ Date: 28/5/15

Pre-Hospital Emergency Care Council

# The minutes of the Medical Advisory Committee

May 28th 2015, the Osprey Hotel, Naas

| Apologies: | Present: | In Attendance |
|---|---|---|
| Gerry Kerr | Mick Molloy | Brian Power |
| Rory Prevett | Peter O'Connor | Deirdre Borland |
| Conor Deasy | David Menzies | |
| Cathal O'Donnell | Shane Knox | |
| Derek Rooney | Macartan Hughes | |
| Stephen Cusack | Niamh Collins | |
| Seamus McAllister | David Hennelly | |
| Joe Mooney | Martin O'Reilly | |
| Declan Lonergan | Shane Mooney | |
| David Irwin | | |
| Jack Collins | | |
| Mark Doyle | | |

## 1. Chairs Business

The Chair welcomed the assembled members and apologies were noted. Congratulations were extended to Joe Mooney on the commencement of his Paramedic training.

## 2. Draft Meeting Report - Thursday 26th March 2015

Niamh Collins asked that three edits were made to the minutes to better reflect the discussion around items 4 &5. Edits were completed as requested prior to being signed.

**Resolution:** That the Medical Advisory Committee approve the minutes from the meeting of March 2015.

**Proposed:** Macartan Hughes **Seconded:** David O'Connor

Carried without dissent.

### 2.1 Matters Arising

2.1.1 An opinion from clinical pharmacologist Prof Peter Weedle regarding the combination of Morphine and Fentanyl was presented in the meeting papers. His opinion; that "given the maximum dose of both Morphine and Fentanyl allowable for both adult and paediatric use, toxicity would seem highly improbable" was accepted by the committee.

## 3. CPGs

### 3.1 CPG updates following prioritisation

3.1.1 Actual/Potential Shock from blood loss (trauma) – Adult

A draft of the amended CPG was included in the meeting papers. It was suggested that pelvic splints be encouraged – this was deemed to be a training issue. Include a decision box with "signs of shock" before first fluid bolus.

Change phraseology from "load and go" to "prioritise transport"

It was suggested that a table of standardised pre arrival alerts be developed rather than included on individual CPGs. Niamh Collins committed to draft same. The changes will be made and returned to at a further meeting.

3.1.2 Allergic Reaction /Anaphylaxis – Adult

A draft of the amended CPG was included in the meeting papers. It was agreed to combine all three clinical levels in one CPG. It was suggested that an "either/or" option be included allowing auto injector or ampule epinephrine.

It was suggested that IV is the best route for chlorophenenamine administration and that this route should be available for available for APs for anaphylaxis. It was also suggested that the IN route for chlorophenenamine administration be considered rather than IM. It was agreed that fluid administration should be started earlier, i.e. before the second epinephrine

It was suggested that in light of the committee highlighting that IV route being more effective for many medications, consideration be given to permitting paramedics to administer the IV route. This was determined to be an issue meriting dedicated discussion and was referred to a future meeting.

It was suggested that the CPG layout be amended to reflect that of the asthma CPG i.e. start with mild and progress to moderate and severe. In absentia Rory Prevett asked that consideration be given to including IM hydrocortisone (paramedic) on this CPG. This was agreed. The word asthma be changed to bronchospasm. The changes will be made and returned to a further meeting.

3.1.3 Allergic Reaction /Anaphylaxis – Paediatric

It was agreed that the changes in the adult CPG be reflected in the paediatric CPG.

3.1.4 Chlorophenenamine Medication Formulary

It was suggested that a suspension presentation may be more useful for paediatric administration. Brian Power to check 7th schedule. In keeping with the changes to the CPG, an IV route will be available for APs.

3.1.5 Pain Management - Adult

A draft of the amended CPG was included in the meeting papers. Methoxyflurane and IV Paracetamol will be included (under moderate and severe pain). Consideration will be given to the inclusion of Ketamine; however this will merit further discussion and debate. An IM route option for ~~Odansotrane~~ Ondansetron/Cyclizine was also agreed. The changes will be made and returned to a further meeting.

3.1.6 Pain Management - Paediatric

The changes in the adult pain management CPG will be reflected in the paediatric CPG. PR route is a valid alternative option for the administration of paracetamol and ibuprofen. The sensitivities around administration via PR route for paediatric patients was recognised, a policy statement of rationale and respect to the dignity of patients; particularly pre-teen and teenage girls will be developed. The Medication Formulary will be amended accordingly.

3.1.7 Methoxyflurane Medication Formulary

The Methoxyflurane medication formulary was agreed

3.1.8 Glycaemic Emergency- Adult (Practitioner)

A draft of the amended CPG was included in the meeting papers. The draft combines all practitioner levels. Following discussion the CPG changes as presented in the meeting papers were accepted.

3.1.9 Glycaemic Emergency – Adult (Responder)

Following discussion the CPG changes as presented in the meeting papers were accepted.

3.1.10 Glycaemic Emergency – Paediatric

The CPG combined all practitioner levels, it was agreed to change "prohibit the administration of glucagon to paediatric patients who have not had a diabetes diagnosis" from an advice to a red box. All other aspects of the CPG as presented in the meeting papers were agreed.

**3.2 Tachycardia CPG review**

A draft of the amended CPG was included in the meeting papers. It was suggested that the entry point be changed to non-sinus tachycardia. It was suggested to insert synchronised before cardioversion and delete "(sync on)". For broad regular QRS complexes add "consider" admiodarone. Add an advice box "shock first if unresponsive" remove "double the energy" from advice box.

Caution was expressed that rather specifying the joules "escalate the energy" should be indicated. Caution was expressed rather than a reliance on calling for medical oversight, particularly in regard to APs working in rural locations as mobile phone network is not always reliable. Concerns were expressed regarding the administration of amiodarone to unstable patients. A lengthy debate ensued.

**3.3 CPGs for prescription only medications for non-clinical persons.**

The Chair indicated that the development of the Draft CPGs included in the meeting papers came about as a result of a request form the Dept. of Health. The Chair indicated that he did not feel it appropriate that the MAC develop this item without further details by way of a written request, from the Dept. of Health.

Brian Power informed the Committee that the Department was invited to come to the present the requirement at this meeting which was declined. The committee expressed its support to regularise these circumstances in an informed rather than a reactionary manner. A concern was raised about the minimal clinical level acceptable for non – medical persons administering medications. It was agreed that CFR or equivalent be a precursor to undergoing any such specialist training. The committee will await the Department's further engagement.

4. **Standards of Operations**

**4.1 Report from subgroup meetings;**

4.1.1 Local Injury Sub group

Minutes of the inaugural local injury subgroup were included in the meeting papers. The agreed principles as outlined in the meeting papers of the LIU inaugural meeting were discussed. These principles were agreed.

4.1.2 Clinical care at events sub

Minutes of the inaugural clinical care at events subgroup were included in the meeting papers. It was agreed that membership be extended by inviting a representative, clinical practitioners only, from organisations providing care at events as recommended in the meeting minutes.

5. **AP query on Midazolam**

A query from an advanced paramedic was submitted to the group regarding a seizing patient and the timing or administration of second dose buccolam midazolam. It was pointed out that only two doses are permitted to be carried in vehicles. There is however two doses at varying concentrations. This is a potential issue for those with long transport times.

It was suggested that this CPG should be amended to include the option of further doses, including considering timeframe between doses and be brought back to the committee.

6. **Draft resolution process for difference of opinion by MAC members on areas of clinical importance.**

The consequences of agenda items being held up due to differences of opinions was discussed. A potential resolution process was included in the meeting papers. It was agreed that at least one of the clinical members from Council be a PHECC practitioner on the clinical decision panel.

**Resolution:** That the committee agree the resolution process as outlined in the meeting papers, subject to the agreed amendment.

**Proposed:** Mick Dineen **Seconded:** David O Connor.

Carried without dissent

7. **A.O.B.**

It was asked that that consideration be given to the inclusion of IV Paracetamol in the Sepsis CPG. Dr Vita Hamilton from the sepsis group has been engaged with this will be revisited at a future meeting.

A query was raised as regards which presentation of Nifedipine was appropriate to stock on the vehicles (standard or rapid release). The obstetric programme will be engaged with and this will be revisited at a future meeting.

Next meeting will be on the 25th June.

Signed: Niamh Collins Date: 25.6.2015

**Medical Advisory Group Meeting**

25th June 2015

| In attendance | Apologies | Present |
|---|---|---|
| Niamh Collins | Mick Molloy | Brian Power |
| Derek Rooney | Mark Doyle | Deirdre Borland |
| Peter O'Connor | Shane Mooney | |
| David O'Connor | Ken O'Dwyer | |
| Dave Irwin | Conor Deasy | |
| Shane Knox | Cathal O'Donnell | |
| Declan Lonergan | Joe Mooney | |
| Jack Collins | David McManus | |
| Macartan Hughes | Séamus McAllister | |
| Martin O'Reilly | David Menzies | |

1. **Chair's Business**
   The vice chair welcomed the members and apologies were noted; including those of the Chair. The committee were informed of the appointment of Mr Peter Dennehy to the position of Director of PHECC and he was wished well in his new role.

2. **Minutes and matters arising**
   **Resolution:** That the minutes of the Medical Advisory Committee Thursday 28th May be approved.

   **Proposed:** Shane Knox **Seconded:** David Hennelly
   Carried without dissent

   3.1.4 Feedback is still awaited as to the availability of suspension of Chlorphenamine, it currently is not in the 7th schedule, should suspension or IN be required this will need to be via interim directive. Jack Collins and Brian Power to research this further. PHECC will make every effort to expedite the inclusion of Chlorphenamine on the next edition of the 7th schedule.

3. **CPGs**
   3.1 CPG updates following prioritisation

   3.1.1 Draft CPG Anaphylaxis – Adult (4/5/6.4.15)
   Chlorphenamine will be the spelling used going forward, as there are two acceptable spellings.
   It was agreed to follow the RCPI 2014 recommendation and have a maximum of three doses of Epinephrine. It was also agreed that for patient's ≥ 100 Kg that 1 mg Epinephrine was the appropriate dose.
   Following discussion regarding the appropriateness of glucagon, salbutamol and atropine for patients on beta blockers who have not responded to Epinephrine it was decided not to implement these medications. It was agreed to introduce a pathway to the bradycardia CPG if bradycardia after Epinephrine.

To avoid any confusion the IV route for Hydrocortisone would be separated from the paramedic symbol.

3.1.2 Draft CPG Anaphylaxis – Paediatric (4/5/6.7.31)
Amendments as per the anaphylaxis adult CPG were agreed.

3.1.3 Draft CPG External Haemorrhage Adult (4/5/6.6.3)
A question was raised in relation to restricting scalp stapling for APs only. It was agreed to roll the skill out for APs initially. The wording be changed to 'temporary closure for haemorrhage control'
The equipment list to be removed from the CPG.

**Resolution**: That the medical advisory committee recommend the draft CPG External Haemorrhage - Adult CPG for the next phase of the development process.

**Proposed:** Peter O'Connor **Seconded:** Macartan Hughes
Carried without dissent

3.1.4 Draft CPG External Haemorrhage – Paediatric (4/5/6.7.50)
Amendments as per the External Haemorrhage – Adult CPG were agreed.

**Resolution:** That the medical advisory committee recommend draft CPG External Haemorrhage – Paediatric for the next phase of the development process.

**Proposed:** Derek Rooney **Seconded:** David Hennelly
Carried without dissent

3.1.5 Draft CPG Glycaemic Emergency – Adult (4/5/6.4.19)
An email from a practitioner was tabled relating to patients with blood sugar of < 4 mmol/L and not symptomatic. It was decided that this was a training issue and clinical judgement should be use.
No changes were recommended to the draft CPG.

**Resolution:** That the medical advisory committee recommend draft CPG Glycaemic Emergency – Adult for the next phase of the development process.

**Proposed:** Peter O'Connor **Seconded:** Declan Lonergan
Carried without dissent

3.1.6 Draft CPG Glycaemic Emergency – Adult (2/3.4.19)
No changes were recommended to the draft CPG.

**Resolution:** That the medical advisory committee recommend draft CPG Glycaemic Emergency – Adult for the next phase of the development process.

**Proposed:** Shane Knox **Seconded:** David Irwin
Carried without dissent

3.1.7 Pain Management – Adult (4/5/6.2.6)
It was suggested that the introduction of Ketamine be explored. Dr Katie Padfield who has extensive experience with this medication in the pre-hospital environment to be invited to speak to the committee. It was agreed to remove Tramadol from the CPG.

3.1.8 Pain Management – Paediatric (4/6.7.5)
The introduction of fentanyl lollipops was discussed. This will be further investigated. It was agreed to remove Tramadol from the CPG. It was agreed to include the IM route for Ondansetron.

3.1.9 Seizure/Convulsions – Adult (5/6.4.23)
A practitioner submitted a query in relation to a second episode of seizing during a long journey where the maximum dose (two) of Midazolam was administered. The practitioner requested that the second seizure episode be regarded as a new episode and Midazolam be administered. It was agreed that the primary focus should be to control the seizure as failure to control it could result in harm. Concern was raised about the possibility of respiratory depression following Midazolam, however it was agreed that practitioners were very competent on airway management and ventilation and that the primary focus should be to stop the seizing. Medical oversite was suggested, however this is not available to paramedics who would administer the Midazolam. It was agreed to remove the maximum dose for anticonvulsant medications and to insert 'repeat at 5 minute intervals prn'
It was reported that restrictions imposed by the Health Products Regulatory Authority (HPRA) licence limits supply to two doses of Midazolam. This causes difficulties on the ground in light of increased doses. PHECC will engage with the HPRA on this issue.

In light of the number of calls seeking medical oversight for increased doses, it was suggested that repeat be removed to repeat prn removing the max dose be removed on the CPG. The formulary should state 'repeat at 5 minute intervals'

3.1.10 Seizure/Convulsions – Paediatric (5/6.7.33)
Amendments as per the Seizure/Convulsion – Adult CPG were agreed.

3.1.11 CPG Actual/Potential Shock blood loss (trauma) – Adult (5/6.6.8)
It was agreed to remove advice box on log roll and pelvic splint. A trauma care appendix to be developed where key principles will be stated rather than on the CPG to guide education and training;

- Minimal patient handling
- Avoid clot disruption
- Apply pelvic splint where applicable
- Avoid log roll where possible.

**Resolution:** That the medical advisory committee recommend draft CPG Actual/Potential Shock blood loss (trauma) – Adult for the next phase of the development process.

**Proposed:** Peter O'Connor **Seconded:** Declan Lonergan
Carried without dissent

3.2 Draft Tachycardia – Adult (5/6.4.12) CPG for review.

No changes were recommended to the draft CPG.

**Resolution:** That the medical advisory committee recommend draft CPG Tachycardia – Adult for the next phase of the development process.

**Proposed:** Peter O'Connor **Seconded:** Derek Rooney
Carried without dissent

**4. ILCOR Guidelines 2015**

The draft ILCOR guidelines were included in the papers. The Chair congratulated Brian Power on his work on the previous ILCOR guidelines. Brian outlined that it took over a year to agree CPGs following the release of the 2010 ILCOR guidelines which is not acceptable. In order to expedite the development of CFR materials and CPGs initial discussion and early decision making was encouraged.

It was explained that the guidelines were draft until they were officially published in October 2015, however if MAC could give clear direction on support or otherwise for the draft guidelines work could commence on the changes.

There are six domains in the draft guidelines and each individual one has a 'Recommend' or 'Suggest' associated with it. The level of recommendations and level of evidence associated with each guideline are also graded. Draft guidelines that did not have a direct pre-hospital application were not presented or discussed.

PHECC to initiate draft changes to CPGs and other standards based on the MAC recommendations listed below. A final decision will be made when the 2015 ILCOR Guidelines are published.

**Basic Live Support**

BLS 1 Supported
BLS 2 Supported
BLS 3 Supported for (i) and (iv). (ii) and (iii) not supported
BLS 4 Supported
BLS 5 Supported
BLS 6 Supported – but only for second or subsequent person on scene
BLS 7 Supported – no change from current practice
BLS 8 Supported in principle – merits further investigation
BLS 9 Supported
BLS 10 Supported
BLS 11 Supported

**Neonate**

Neo 1 Supported
Neo 2 Not supported

Neo 3 Not supported – recommendation that training should occur every year but absolutely must occur every two years

Neo 4 Not supported

**Frist Aid**

FA 1 Supported
FA 2 Not supported
FA 3 Supported – no change from current practice
FA 4 Not supported
FA 5 Not supported
FA 6 Supported
FA 7 Not supported
FA 8 Supported
FA 9 Not supported
FA 10 Not supported

**Education and Training**

E&T 1 Supported
E&T 2 Supported
E&T 3 Supported
E&T 4 Supported – no change from current practice
E&T 5 Not supported
E&T 6 Supported

**Advanced Life Support**

ALS 1 Supported – avoid hyperthermia
ALS 2 Supported
ALS 3 Supported
ALS 4 Supported – no change from current practice
ALS 5 Supported
ALS 6 Not Supported
ALS 7 Supported
ALS 8 Supported – no change from current practice
ALS 9 No decision – Final decision not made in draft recommendations.
ALS 10 Supported
ALS 11 Supported
ALS 12 Supported
ALS 13 Not supported

**Paediatric**

Paeds 1 Supported

**5. Practitioner query on management of paediatric Stridor**

It was agreed that nebulised Epinephrine was appropriate for croup and will be progressed in the CPG.

## 6. AOB

6.1 Brian Power indicated that feedback is still outstanding from the obstetric programme regarding the emergency obstetrics CPGs. Brian will make contact again with the programme.

6.2 An email from Ken O'Dwyer regarding the Spinal injury management seminar was read to the group. He expressed a concern regarding the balance of the discussion. Brian Power reiterated that the seminar was only part of the deliberation process.

6.3 The chair congratulated Shane Knox on the award of his PhD.

6.4 The EMP pre-alert guideline was circulated to the group. It was suggested that a pre-alert standard be developed by PHECC. Sean Walsh to be consulted in relation to paediatric alerts.

6.5 It was highlighted that clear handover of clinical lead on scene is problematic. This can be particularly so when APs arrive on scene and they sometimes dance around the issue not wishing to cause offence or alienation. It was suggested that the aviation industry standards should be followed as there is clear precise wording whenever one pilot hands over flight command to another. Brian Power to come back with suggested wording that could be adopted throughout the pre-hospital environment to avoid any ambiguity.

Next meeting Thursday 24th September.

Signed: Niamh Collins Date: 24th July 2015

Pre-Hospital Emergency Care Council

# Medical Advisory Committee Meeting

24th September 2015

Osprey Hotel, Naas

| In attendance | Apologies | Present |
|---|---|---|
| Niamh Collins | Mick Molloy | Brian Power |
| Seamus McAllister | Joe Mooney | Margaret Bracken |
| Conor Deasy | Shane Mooney | Peter Dennehy |
| David Hennelly | Peter O'Connor | |
| Macartan Hughes | Gerald Kerr | |
| Shane Knox | David McManus | |
| Declan Lonergan | Michael Dineen | |
| David O'Connor | Jack Collins | |
| Derek Rooney | Martin O'Reilly | |
| Cathal O'Donnell | | |
| David Menzies | | |

## 1. Chair's Business

The vice chair welcomed the members and apologies were noted; including those of the Chair. The committee welcomed Mr Peter Dennehy, Director of PHECC, to the meeting.

Mr Dennehy addressed the meeting and spoke about how far the profession has come and commended everybody on their hard work to date.

## 2. Minutes and matters arising

Niamh Collins requested an amendment to the minutes: 3.1.7

after Ketamine change from 'be in a structured limited rollout' to 'be explored'

**Resolution:** That the minutes of the Medical Advisory Committee Thursday 25th June be approved, subject to the agreed change.

**Proposed:** Derek Rooney **Seconded:** Declan Lonergan

Carried without dissent

## 3. CPGs

**Dr Katie Padfield – Experiences with Ketamine:**

The vice chair introduced Dr Katie Padfield to the committee. Katie has extensive experience using Ketamine both in Sudan and the Royal Flying Doctors in Australia. In Sudan Ketamine was used for operations without advanced airway adjuncts. Katie thanked Brian for inviting her and spoke about her experiences with Ketamine. In her opinion Ketamine can be safely used for analgesia and sedation when administered in low doses (0.1 mg/kg) and as a very good anaesthetic when administered in high doses (1 to 1.5 mg/kg). Although patients may seem distressed during procedures they have no memory of this afterwards. There is a chance of anaesthetic reaction after a high dose but the reaction is not aggressive and there is no increased risk to practitioners. She suggested introducing it as an analgesic initially.

1.1 mg/kg for analgesia
1-1.5 mg/kg for anaesthetic/sedation

David Menzies and Conor Deasy have experience using the medication and gave their opinions:

David Menzies – should be considered for non-traumatic pain. PHECC should have a CPG for sedation and Ketamine would be suitable should higher doses of morphine be available.

Conor Deasy – Ketamine when administered correctly is far safer than some of the medications we currently have. It does not need massive amounts of training but a lot of awareness is needed. 10 mg of Ketamine when max of morphine reached, will not affect respiration or blood pressure – side effect nausea and vomiting have to be considered.

Other comments include:

- Very different medication, need a very robust education and training standard around it. The practitioner has to be confident using it.
- Was concerned that using the medication would present difficulties for pre-hospital patients, especially if the patient becomes distressed in the back of the ambulance.
- It was suggested to use a combination of Fentanyl and Ketamine for short term procedures such as extrication or limb alignment.

**Resolution:** That Ketamine be introduced into the PHECC medication formulary for pain management and sedation.

**Proposed:** David Hennelly **Seconded:** Conor Deasy
Carried without dissent

### 3.1 CPGs Delphi report

Brian Power expressed his disappointment on the poor response to the report with total response of 58.6% of MAC members.

- **External Haemorrhage – Adult (4/5/6.6.3)**

Apply scalp clips for temporary closure for haemorrhage control:
There was some opposition to using scalp clips and a few members are unsure. The consensus was that CPG is to be revised at a later meeting having explored it more. Consult with Queensland Ambulance Service as they have a CPG for this.

"Posture Elevation Examination Pressure" to be moved and placed before catastrophic haemorrhage.

Depress proximal pressure point – add EMT level.

- **External Haemorrhage –Paediatric (4/5/6.7.50)**

The changes and comments as per Adult CPG apply to this CPG also.

- **Glycaemic Emergency – Adult (Practitioner) (4/5/6.4.19)**

Insert "Consider ALS" to after Conscious/able to swallow (No)
Repeat prn: change from P TO EMT (Glucose gel 10-20 g buccal)

**Resolution:** that the Medical Advisory Committee recommend the Glycaemic Emergency – Adult (4/5/6.4.19) CPG to Council for approval, subject to the agreed changes.

**Proposed:** Macartan Hughes **Seconded:** Derek Rooney
Carried without dissent

- **Glycaemic Emergency – Responder (2/3.4.19)**

No changes were recommended to the draft CPG.

**Resolution:** That the Medical Advisory Committee recommend Glycaemic Emergency – Responder (2/3.4.19) to Council for approval.

**Proposed:** David Menzies **Seconded:** Shane Knox

Carried without dissent

- **Actual/Potential Shock from Blood Loss (trauma) – Adult (5/6.6.8)**

Insert care bundle - pelvic splint box

Change initial fusion of NaCl (0.9%) 500 mL IV/IO to "consider administration of 250 mL IV if clinical signs of shock"

**Resolution:** that the Medical Advisory Committee recommend CPG Actual/Potential Shock from Blood Loss (trauma) – Adult (5/6.6.8) to Council for approval, subject to the agreed changes.

**Proposed:** David O'Connor **Seconded:** David Hennelly

Carried without dissent

- **Tachycardia –Adult**

The consensus was that there was a lot of information in this CPG and to come back to review again after the 2015 ILCOR release.

### 3.2 CPGs updated

#### 3.2.1 Draft CPG Pain Management Adult (4/5/6.2.6) & Paediatric (4/5/6.7.5)

It was agreed that Ketamine is appropriate for inclusion on CPG

Change to 0.1 mg/kg IV with repeat Ketamine once at 5 min interval (< 50kg = 5 mg; > 50 kg = 10 mg)

The indication for Ketamine was agreed as; intractable pain where other medications have not been effective or temporary necessary movement may result in significant pain.

It was suggested to improve layout of Pain Ladder; that the Queensland Model could be considered and to remove 3D effect.

It was suggested to insert "anticipated pain" in red box at end of CPG.

On Paediatric CPG remove information box "Tramadol PO for >12 year olds only".

#### 3.2.2 Draft CPG Anaphylaxis Adult (4/5/6.4.15)

Within box "Epinephrine administered pre arrival?" insert "effective".

The agreed spelling of Chlorphenamine to be used throughout.

It was suggested that subject to changes outlined that this CPG go to Delphi.

#### 3.2.3 Draft CPG Anaphylaxis Paediatric (4/5/6.7.31)

Changes as per Adult CPG.

Insert a box - Consider Oral antihistamine Valergan? Consult with Dr Sean Walsh.

Consult with Department of Health on use of non-licensed medications.

#### 3.2.4 Draft CPG Seizure Adult (5/6.4.23)

No changes were recommended and it was agreed that this CPG could go to Delphi.

#### 3.2.5 Draft CPG Seizure Paediatric (5/6.7.33)

No changes were recommended and it was agreed that this CPG could go to Delphi.

### 3.3 Sepsis Adult CPG (4/5/6.4.24)

Change > 39°C to 38.3°C as indication for paracetamol. Add paracetamol IV as an option.

Insert box "Pre-alert ED" after "could this be a severe infection?

Check pre-alert ED when SIRS Positive with Emergency Medicine Programme.

Remove red box on left "Take three blood cultures etc"

Risk Stratifier: delete Lactate > 2 mmol / L (venous)

Discuss with Vita Hamilton re meningitis suspected or > 45 min from ED (clarify when time starts calculating)

Following discussion delete reference to Cefotaxime 2 g IV, Ceftriaxone 2 g IV is the agreed antibiotic of choice.

## 4. ILCOR Guidelines

### 4.1 Draft updated CPGs

The following CPGs were presented for information outlining the proposed changes from ILCOR 2015 guidelines:

VF or Pulseless VT – Adult

Asystole – Adult

Pulseless Electrical Activity – Adult

Basic Life Support – Adult (practitioner)

Basic Life Support – Adult (responder)

Pre-hospital emergency childbirth

Post Resuscitation Care – Adult (P & AP)

Post Resuscitation Care – Adult (EMT)

Post Resuscitation Care (responder)

### 4.2 Heel compression

Brian Power presented a new concept of heel compression. This outlined the process whereby cardiac compressions can be performed by persons that cannot kneel down or have not got the strength in their arms to push the chest deep enough for effective compressions.

It was agreed that although heel compression probably worked, MAC could not recommend it at this stage as it was not evidence based or supported by ILCOR.

## 5. Standard Operations

### 5.1 Clinical lead handover

Change document title to: assuming clinical lead pre-hospital

When taking clinical lead change “I have clinical lead” to “I am assuming clinical lead”

When relinquishing clinical lead change “you have clinical lead” to “you are clinical lead”

Change “I have clinical lead” to “I am clinical lead”

**Resolution:** that the draft standard of operation "assuming clinical lead pre-hospital" be recommended to Council for approval.

**Proposed:** Conor Deasy **Seconded:** Derek Mooney

Carried without dissent

### 5.2 National pre-alert guidelines

Brian Power outlined that he had been in contact with Sean Walsh re the paediatric pre-alert conditions. Sean has advised that he has requested a new colleague, Michael Barrett, to look at this for MAC.

### 5.3 Response from HPRA

Brian Power referred to the reply from the HPRA in the meeting papers. The response in essence states that each licensed CPG provider may apply for the number of controlled medication units that it requires for operational requirements under two headings:

(a) Maximum quantity to be in position of paramedic/advanced paramedic

(b) Maximum quantity to be held on site

The HPRA reported verbally that provided the requested number of controlled medication units is reasonable there will be no difficulty.

## 6. Queries/Feedback from practitioners

### 6.1 Epinephrine infusion following cardiaogenic shock

Following discussion it was agreed that an Infusion pump is required for patient safety for Epinephrine infusion.

An alternative of 0.5 mL of 1:10,000 may be appropriate as a one off response to cardiogenic shock.

This will be explored further with the publication of the 2015 ILCOR guidelines.

### 6.2 GP issues with practitioners

As outlined in the meeting papers a GP has written to PHECC stating his concern about PHECC practitioners repeating vital signs and ECG outside a GPs surgery and in his opinion delaying the transportation to ED. A possible solution offered was for the practitioners to transcribe the last vital signs from the GP on to the PCR. During the discussion it was

highlighted that ED nurses are not permitted to accept vital signs from PHECC practitioners and record them on ED documentation, they must take them themselves and record them independently.

As a standard of care it was agreed that practitioners must take a set of vital signs on handover from GPs or other healthcare professional.

### 6.3 Pain management for ACS

Following discussion it was agreed that Paracetamol and Ibuprofen were not appropriate to manage cardiac chest pain.

### 6.4 Fluid temperature control

Following discussion it was deemed to be a service issue.

### 6.5 Treatment change suggestions – Epistaxis, Opioid OD & NR

(a) The inclusion of topical TXA for Epistaxis was rejected previously at MAC and the discussion led to the same conclusion.

(b) It was agreed that the Opiate overdose issue was a training issue.

(c) It was agreed that the neonatal resuscitation issue would be left until the 2015 ILCOR guidelines were published.

### 6.6 CPG Forum

The meeting papers had an e-mail from Niamh Cummins expressing concern about the CPG Forum and the activity levels in particular. It was suggested to write to the six members of the MAC CPG Forum and advise them to engage with Niamh Cummins, UL.

## 7. AOB

There was no AOB and the meeting concluded.

Next meeting Wednesday 25th & Thursday 26th November in The Killeshin Hotel, Portlaoise.

Signed: Niamh Collins Date: 23rd October 2015

Pre-Hospital Emergency Care Council

# Medical Advisory Committee Meeting

25th & 26th November 2015

The Killeshin Hotel, Portlaoise, Co. Laois

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| In attendance | | Apologies | Present |
|---|---|---|---|
| **25th Nov** | **26th Nov** | | |
| Mick Molloy Chair | Mick Molloy Chair | Shane Knox | Brian Power |
| Niamh Collins | Niamh Collins | David McManus | Peter Dennehy |
| Joe Mooney | Joe Mooney | Valerie Small | Margaret Bracken |
| Conor Deasy | Conor Deasy | Sean Walsh | |
| David Hennelly | David Hennelly | Seamus McAllister | |
| Shane Mooney | Shane Mooney | Gerald Kerr | |
| Macartan Hughes | Macartan Hughes | Stephen Cusack | |
| Declan Lonergan | Declan Lonergan | | |
| Michael Dineen | Michael Dineen | | |
| David O'Connor | David O'Connor | | |
| Derek Rooney | Derek Rooney | | |
| Ken O'Dwyer | Ken O'Dwyer | | |
| Martin O'Reilly | Martin O'Reilly | | |
| Jack Collins | Jack Collins | | |
| Peter O'Connor | Neil Reddy | | |
| Gerry Bury | | | |
| David Menzies | | | |

## 1. Chair's Business

The chair welcomed the members and apologies were noted.

## 2. Minutes and matters arising

Some amendments to the minutes were noted as follows:

### 3. CPG Dr Katie Padfield – Experiences with Ketamine

- delete the word 'sedation' to read 0.1 mg/kg for analgesia
- add the word 'sedation' after 'for anaesthetic' to read 1-1.5 mg/kg for anaesthetic/sedation
- delete the words 'wrong dose can cause serious harm, however'
- under other comments include: delete 2nd and 3rd bullet point

**6. Queries/Feedback from practitioners**

6.1 correct spelling of Epinephrine

**Resolution:** That the minutes of the Medical Advisory Committee Thursday 24th September be approved, subject to the agreed changes.

**Proposed:** Macartan Hughes **Seconded:** Niamh Collins

Carried without dissent

**3. Prescription only Medication for non-medical persons**
**CPGs for review – Delphi results**

Brian Power gave an overview of the results of the Delphi report 3. Member's comments were discussed. Some amendments are to be made to the CPGs before going to Council for approval. The consensus from the members was to remove the words 'previously prescribed' from some of the CPGs as the wording of SI 449 of 2015 removed that requirement.

**1.3.6 Opioid Overdose**

- Black box at the top of the GPG amend to read: Suspected opioid overdose
- Delete picture of syringe and all pictures of CPR
- Scene Safety box: amend spelling of careful
- Inject Naloxone box: move to after 'call for help and an AED'; add 0.8 mg IN
- Change 'Breathing adequately' to 'Breathing abnormally or gasping'
- Add 'shake and shout' early in the CPG
- It was agreed that a pocket mask must be available with Naloxone, the pocket mask to be reflected on the CPG

There was a discussion about Naloxone and it was agreed to check to see if the drug is licensed for use in Ireland.

Pre-Hospital Emergency Care Council

### 1.4.15 Severe allergic reaction (Anaphylaxis) – Adult

- Black box at top: insert 'suspected' after Anaphylaxis
- Delete picture of woman on stretcher
- Anaphylaxis Criteria: add to list – 'Airway swelling' and 'Circulation (blood) pressure drop' and change 'Difficulty breathing' to 'Breathing difficulty'
- Change 'Collapsed state' to 'Airway, Breathing or Circulation problem'
- After 'Airway, Breathing or Circulation problem' delete all boxes referring to Salbutamol on the left
- After 'Reassess' insert boxes:
  - Patient Improves after 5 minutes
  - Epinephrine (1:1,000) 300 mcg IM Auto injection
- Switch RED card and Special Authorisation locations
- Insert Equipment list underneath Special Authorisation

### 1.7.31 Severe allergic reaction (Anaphylaxis) – Paediatric

- Amend as per adult CPG 1.4.15

### 1.3.4 Asthma

- Change title to 'Moderate or Severe Asthma'
- Replace 'Wheeze/bronchospasm' with 'Unable to speak normally with a history of asthma'
- Change 'History of Asthma' to 'Life threatening asthma'; insert arrow for Yes and move telephone to after Yes
- After 'Life threatening asthma' insert arrow for No and add box: 'Able to self-manage'; insert arrow for No pointing to 'Prescribed Salbutamol previously'
- Change 2 puffs of Salbutamol to 1 puff
- After 'Reassess' insert box: 'Breathlessness resolves within 10 minutes'; insert Yes arrow and red box: 'Refer patient to GP'
- Insert arrow for No and add telephone
- Add two boxes top right: 'Life threatening asthma' and 'During an asthma attack'
- Move picture to right hand side
- Insert Equipment list bottom left

Check the Asthma Society Guidelines.

### 1.4.19 Low Blood Sugar (Hypoglycaemia) – Adult

- Black box top left:
  - Insert 'rapid onset' after 'Known diabetic' and before 'confusion' to read: 'Known diabetic with rapid onset confusion or altered levels of consciousness'
- Insert box: Check blood glucose (if glucometer available)
- Move telephone to 'No' following 'Alert and able to swallow' decision
- After Recovery Position:
  - delete 'History of diabetes' and 'Prescribed Glucagon previously'
  - replace with 'Blood glucose < 4 mmol/L' and after No (follow arrow) insert 'Glucose gel, 10-20 g buccal'
  - Insert advice box: 'Glucagon will not be effective when administered to under nourished persons' (red text)
- Bottom left: Change 'Alert and able to swallow' to 'Alert and orientated' Change layout with No arrow going back up to after 'Check blood glucose (if glucometer available)'
- Switch RED Card and Special Authorisation (bottom of page)
- Under Special Authorisation insert Equipment List box: Glucagon, Glucose gel, Glucometer

### 1.7.32 Low Blood Sugar (Hypoglycaemia) – Paediatric

- As per Adult CPG 1.4.49 except move phone to before 'Check blood glucose (if glucometer available)'

### 1.4.10 Cardiac Chest Pain – Acute Coronary Syndrome

- Change title of CPG to 'Angina'
- Before telephone edit box 'Cardiac chest pain' to read: 'Patient with chest pain and known cardiac history'
- GTN 0.4 mg SL - insert 'Assist patient to administer'
- Switch RED Card and Special Authorisation (bottom of page)

### 3.2.6 Severe Pain Management (remote area)

- To include flag for BTEC
- Delete pain assessment recommendation box
- Before Pain assessment box add box: 'Consider non pharmacological pain management techniques'
- Edit 'Severe pain (≥ 7 on pain scale)' to read: 'Moderate to severe pain'
- Insert red box underneath Analogue Pain Scale: 'If severe pain Request ALS'
- Move red box up underneath 'Go back to originating CPG': 'Decisions to give analgesia'
- Insert Equipment list bottom left

## 4. Pre-alert protocol

Brian Power gave a brief outline on the National Pre-alert Guidelines Version 0.2 and Niamh Collins gave more details to the members.

**Comments include:**

- Under 'Specific Clinical Conditions' (bullet point 5) delete 'Septic Shock' and replace with 'Severe Sepsis'
- Queries about transfer time
- Under 'Mechanism of Injury' a query was raised on bullet point 4: Fall > 2 m or 10 steps reference CDC 20 feet (greater than 10 feet for children)
- There is an assumption this is just for trauma
- Trauma is the least concern in respect of pre-alerts
- List shouldn't be exclusive
- Should the threshold for vital signs be lowered?
- ED issues and patient flow issues
- Keep in mind that Voluntaries and Auxiliaries not as familiar
- Has to be practical and meet the needs of the practitioners

It was decided to come back with suggestions/amendments from the members and discuss at the next meeting

## 5. Model of care for adult critical care

Brian Power explained that this document is for information purposes and he drew the attention of the members to pages 26 & 27. It was agreed that no specific action is necessary unless there is a conflict of interest.

## 6. CPGs

### 6.1 Delphi results

Brian Power gave an overview of the results of the Delphi report. Previous comments by members were discussed. Some amendments were made to the CPGs.

#### 4/5/6.4.15 Allergic Reaction/Anaphylaxis – Adult

- 'Epinephrine dosage' box: delete 'to Max of three doses. Patients ≥ 100 Kg, dose = 1 mg'
- 'Chlorphenamine, 4 mg, PO' box: add 'IM Chlorphenamine, 4 mg IV'
- Move 'NaCl' to before 'Chlorphenamine' on the severe arm of the CPG and change 'Repeat by one' to 'Repeat prn'
- Bottom of CPG under 'Mild' move 'and or angio oedema' to 'Moderate' box; also Severe/anaphylaxis after Moderate symptoms + add A, B or C compromise
- Delete Special Authorisation for Paramedics to maintain IV fluids

It was agreed to remove the Special Authorisation from all CPG pertaining to maintaining IV fluids and make it a generic principal.

**Resolution:** That Allergic Reaction/Anaphylaxis – Adult CPG (4/5/6.4.15) is recommended to Council for approval subject to the changes above being included.

**Proposed:** David Hennelly **Seconded:** Mick Dineen

Carried without dissent

**5/6.4.23 Seizure/Convulsion – Adult**

- Delete picture of syringe - IV access
- Stack all medications and delete 'Repeat prn' for each medication
- Insert box to left of medications to read (in red):
  - Benzodiazepine
  - Maximum 4 doses regardless of route (consider medical oversite)
  - If benzodiazepine administered prior to arrival regard this as a dose(s)
- Red box bottom right - edit to read:

  'If patient recommences seizing regard it as a new event, administer one dose of benzodiazepine – then consult medical oversite (AP)'

**Resolution:** That Seizure/Convulsion – Adult CPG (5/6.4.23) is recommended to Council for approval subject to the agreed changes.

**Proposed:** Shane Mooney **Seconded:** Mick Dineen

Carried without dissent

**5/6.7.33 Seizure/Convulsion – Paediatric (≤ 15 years)**

- Same changes as per 5/6.4.23 Seizure/Convulsion – Adult were agreed

**Resolution:** That Seizure/Convulsion – Paediatric (≤ 15 years) CPG (5/6.7.33) is recommended to Council for approval subject to the agreed changes.

**Proposed:** Niamh Collins **Seconded:** Declan Lonergan

Carried without dissent

#### 4/5/6.2.6 Pain Management – Adult

- Change 'KPIs for pain management' to 'Treatment Principle for pain management'
  - insert bullet point: 'Pain management will not prevent the diagnosis of conditions or injuries'
  - change bullet point 1 to: 'Pain management to commence within 10 minutes of arrival on scene'
  - change bullet point 2 to: 'Pain management to result in no worse than mild pain'
- Insert 'Request ALS' underneath 'Treatment principles'
- 'Consider non pharmacological pain management techniques': change design to standard format
- 'Reassess and move up the pain ladder if appropriate'
  - change to 'Implement pharmacology strategy at appropriate level on the pain ladder'
  - Insert red border
- Stack and rearrange pain medications into one box similar to QAS CPG
- Delete Pain boxes to left of medications list
- To right of pain medications (red text):
  - Insert new box: 'If > 50 Kg, Paracetamol 1.5 mg IV'
  - insert new box: 'Following initial dose of Fentanyl IN, the second or subsequent dose must be either Fentanyl or Morphine, but not both'
- At end of CPG insert 'Consider Medical Oversight'

### 6.3 Draft Suspension Trauma

#### 4/5/6.6.4 Harness Induced Suspension Trauma

- NaCl (0.9%) dose: replace 20 mL/Kg aliquots with 2 L (Adult)

**Resolution:** That the Suspension Trauma CPG (4/5/6.6.4) be recommended to Council for approval subject to the agreed changes outlined above.

**Proposed:** Niamh Collins **Seconded:** David O'Connor

Carried without dissent

## 7. Emergency Obstetrics CPGs

7.1 Obstetrics advice on CPGs

7.2 Draft CPGs for Obstetric Emergencies

### 5/6.5.1 Pre-Hospital Emergency Childbirth P & AP

- Insert 'skin to skin to maintain temperature of baby'

### 4.5.1 Pre-Hospital Emergency Childbirth EMT

- Include 'clamp and cut the cord'
- Include 'skin to skin during transport'

### 5/6.5.2 Basic & Advanced Life Support – Neonate (< 4 weeks) P & AP

- See ILCOR section

### 4.5.2 Basic Life Support – Neonate (< 4 weeks) EMT

- See ILCOR section

### 5/6.5.3 PV Haemorrhage in Pregnancy P & AP

- Include EMT level
- Delete 'Query'

### 5/6.5.4 Postpartum Haemorrhage

- Include EMT level
- Move 'NaCl' box to after 'Elevate lower limbs'
- After 'Consider inserting a urinary catheter' insert box 'Consider TXA'

### 5/6.5.5 Umbilical Cord Complications

- Include EMT level

### 5/6.5.6 Breech Birth

- No changes recommended

## 8 Standard of Operations

### 8.1 Transport to local Injury Units by ambulance

Brian Power outlined progress to date; he is awaiting feedback from the EMP following their meeting on the topic.

### 8.2 PCR Information Standard 2016

Suggestions from the members as follows:

- It was agreed to include a 'Sepsis care bundle' on the PCR under 'Care Management' to include tick boxes for 'SIRS +, severe sepsis and septic shock'
- Under Clinical Impression on the PCR include a tick box for haemorrhage on the anatomical arm

**Resolution:** That the Medical Advisory Committee recommend the PCR Information Standard 2016 be approved by Council subject to the changes agreed.

**Proposed:** Derek Rooney **Seconded:** Joe Mooney

Carried without dissent

## 9 Practitioner queries re CPGs and medications

### 9.1 Query Entonox and ACS patients

The response from Prof Daly was noted.

### 9.2 Hydrocortisone query

The consensus was that offering Hydrocortisone Intra Muscular would be of no benefit as it is too slow acting for acute asthma.

### 9.3 Query Ipratropium Bromide

It was agreed to put both presentations of 0.25 mg and 0.5 mg Ipratropium Bromide in the medication formulary.

## 10 ILCOR updates

Seven areas were identified from the ILCOR 2015 Guidelines that pertain to PHECC CPGs. Modifications/drafting of CPGs based on the 2015 Guidelines were included in the papers. The meeting divided into seven subgroups to deliberate on each of the areas and then returned to the committee with suggestions and findings.

| Topic | | Facilitator |
|---|---|---|
| P3 | BLS Adult | D. Lonergan |
| P4 | ALS | D. Menzies |
| P5 | ACS | C. Deasy |
| P6 | Paediatric BLS & ALS | M. O'Reilly |
| P7 | Neonatal Resuscitation | M. Hughes |
| P8 | Education, Implementation and Teams | D. Hennelly |
| P9 | First Aid | M. Dineen |

**Feedback from ILCOR sections**

Brian Power had made the amendments to the CPGs from the previous day's discussions and these were shown to the members for feedback.

### 4/5/6.4.1 Basic Life Support - Adult

| | | |
|---|---|---|
| 1 | Remove boxes: | 1. Witnessed arrest<br>2. Provide continuous chest compressions (CCC) until AED available<br>3. Provide CPR until AED available<br>4. Attach defibrillation pads |
| 2 | Insert box (underneath Request ALS) | 1. Attach defibrillation pads<br>2. Commence continuous chest compressions (or CPR) while defibrillator is being prepared |
| 3 | Remove box: | Consider passive ventilation using OPA and $O_2$ with CCC |
| 4 | Edit: | 'Immediately resume CCC (witnessed) Or' and '(unwitnessed)' to read: 'Immediately resume CPR for 2 minutes' |
| 5 | Edit (left of page-red text): | Change: 'Complete in parallel if two or more persons on site' to 'CPR if more than two persons on site' |
| 6 | Correct typo (left of page-red text): | from permitts to permits, to read 'Continue CCC/CPR while defibrillator is charging if AED permits' |

Pre-Hospital Emergency Care Council

### 1/3.4.1 Basic Life Support - Adult

| | | |
|---|---|---|
| 1 | Insert box after telephone: | Go to Primary Survey CPG |
| 2 | Remove flags (CFR-A & EFR): | Beside Oxygen therapy and Suction OPA |
| 2 | Insert box: (red text top left) | Initiate mobilisation of 3 to 4 practitioners/responders on site to assist with cardiac arrest management |
| 3 | Insert words: (red text bottom right) | 'if AED permits' after 'Continue CPR while AED is charging' |
| 4 | Insert word: (red box bottom left) | 'physically' to read 'If physically unable to ventilate perform compression only CPR' |

### 1/2.4.1 Basic Life Support –Adult

| | | |
|---|---|---|
| 1 | Pictures: | Consult with Ray Carney on issue |
| 2 | Move: (red box from bottom left to top left) | 'If physically unable to ventilate perform compression only CPR' |

### 5/6.3.1 Advanced Airway Management – Adult

| | |
|---|---|
| | No changes recommended |

### 5/6.4.7 Post-Resuscitation Care – Adult

| | | |
|---|---|---|
| 1 | Move boxes: | 'ECG, $ETCO_2$ & $SpO_2$ monitoring' and 'Check blood glucose' to before '12 lead ECG' |
| 3 | NaCl: | 1. replace 'hypotensive' with 'hypotension'<br>2. insert 250 mL after (0.9%) |
| 4 | Move Epinephrine to underneath NaCl and edit: | To read: 'If cardiogenic shock suspected consider Epinephrine 0.05 mg IV/IO' and insert 'repeat prn' |
| 5 | Delete box: | 'Atropine 0.6 mg' (after Bradycardia) and insert box with 'Go to Bradycardia CPG' |
| 6 | Delete box: | 'Consider Amiodarone' (after Ventricular Tachycardia) and insert box with 'Go to Tachycardia CPG' |
| 7 | Delete boxes (underneath Symptomatic arrhythmia): | Unresponsive<br>Targeted temperature management .....<br>Avoid hyperthermia |
| 8 | Insert box: | Prevent hyperthermia |
| 9 | STEMI or Non-STEMI: | Edit to read: 'STEMI identified' |
| 10 | Red box after STEMI: | Replace 'Transport' with 'Contact' and insert 'for direction' to read: 'Contact Primary PCI facility for direction (follow ACS CPG)' |
| 11 | Move: | Drive smoothly icon to right of red transport box |
| 11 | Insert box: | If Opioid suspected consider Naloxone, dose and route specific to clinical level |

### 4.4.7 Post-Resuscitation Care – Adult

| | | |
|---|---|---|
| 1 | Delete: | 'Targeted temperature management (32° to 36° C)' |
| 2 | Move boxes to after ECG & $SpO_2$ monitoring: | 1. ECG & $SpO_2$ monitoring to after Recovery Position<br>2. Blood glucose < 4 mmol/L and Go to Glycaemic Emergency CPG |
| 3 | Insert box: | 'Prevent hyperthermia' after 'Monitor vital signs' |
| 4 | Delete box (red text to right of CPG): | Avoid hyperthermia |

### 1/2/3.4.7 Post-Resuscitation Care

| | |
|---|---|
| | No changes recommended |

### 4/5/6.4.3 VF or pVT – Adult

| | | |
|---|---|---|
| 1 | Change prn Epinephrine : | from '3 to 5 minutes' to '4 minutes' and add '(every 2nd cycle)' |
| 2 | Delete box: | 'If Opioid OD suspected consider Naloxone.....' |
| 3 | Delete box: | 'If pulmonary embolism suspected consider Heparin Sodium.....' |

### 5/6.4.4 Asystole – Adult

| | | |
|---|---|---|
| 1 | Change prn Epinephrine : | Epinephrine from '3 to 5 minutes' to '4 minutes' and add '(every 2nd cycle)' |
| 2 | Change dose NaCl: | from '20 mL/Kg' to '1 L' and insert 'Repeat prn' |
| 3 | Delete box: | 'If Opioid OD suspected consider Naloxone.....' |
| 4 | Delete box: | 'If pulmonary embolism suspected consider Heparin Sodium.....' |

### 4.4.4 Asystole – Adult

| | | |
|---|---|---|
| 1 | Edit (over ambulance icon): | Delete 'if no ALS available' and insert 'Contact NAS control for directions' |
| 2 | Delete (Mechanical CPR device is the optimum care during transport) and replace with: | For crew safety and optimum CPR mechanical CPR is required during transport |
| 3 | Replace (With CPR ongoing maximum hands off time 10 seconds) with: | CPR Principal: compression fraction of > 80% |

Pre-Hospital Emergency Care Council

### 4/5/6.4.6 Pulseless Electrical Activity – Adult

| | | |
|---|---|---|
| 1 | Change prn: | Epinephrine from '3 to 5 minutes' to '4 minutes' and add '(every 2nd cycle)' |
| 2 | Change dose NaCl: | from '20 mL/Kg' to '1 L' and insert 'Repeat prn' |
| 3 | Delete box: | 'If Opioid OD suspected consider Naloxone.....' |
| 4 | Delete box: | 'If pulmonary embolism suspected consider Heparin Sodium.....' |

### 5/6.4.12 Tachycardia - Adult

| | | |
|---|---|---|
| 1 | AP box: Consider cardioversion | delete 'Narrow irregular = 120 J (synch on)' and 'Polymorphic = defibrillate (synch off)' and insert '(If unsuccessful escalate energy by 50 J)' |
| 2 | Insert box: (between AP box and Consider Amiodarone) | 'NaCl 500 Ml IV/IO' |
| 3 | Change dose of Amiodarone: (both boxes) | from 300 mg IV to 150 mg IV |
| 4 | Add diamond (before ambulance symbol at bottom of CPG) and insert: | 1. 'Continues to be unstable'<br>2. No and arrow to ambulance<br>3. Yes and arrow up to Adverse signs |
| 5 | Delete Special Authorisation | Authorisation for continued IV fluids by Paramedics |
| 6 | Add box: | Torsades de Point? Defibrillate (sync off) |
| 7 | Add information box | If initial Adenosine unsuccessful repeat at 12 mg x 2 prn |

### 5/6.4.10 Acute Coronary Syndrome

| | | |
|---|---|---|
| 1 | STEMI: (red box top left) | Keep ERC 2015 definition of STEMI and change mV to mm (0.1 & 0.2); add 'with Clinical support of AMI' |
| 2 | Move red box: | Right precordial leads should be performed if inferior MI is supected.....(move to between STEMI and MP-Indication for Thrombolysis) |
| 3 | Move box: | 'Oxygen therapy' underneath 'Apply 3 lead ECG & $SpO_2$ monitor'; add 'consider' |
| 4 | Move box Acquire 12 lead ECG: | to underneath Aspirin 300 mg PO |
| 5 | PPCI time decisions | change wording to read: Time to PPCI Centre < 90 min of STEMI identification on 12 lead ECG |
| 6 | Indications for Thrombolysis | 1. Change 'Confirmed STEMI' to No 1<br>2. Change MI symptoms timeframe to '≤ 2 hours' and make it No 2 |
| 7 | GTN administration | Caution with GTN for inferior MI: HR > 60 and sys BP > 110 mmHg |

### 4.4.10 Cardiac Chest Pain - Acute Coronary Syndrome

| | | |
|---|---|---|
| 1 | Move Oxygen: | 'Oxygen therapy' underneath 'Apply 3 lead ECG & $SpO_2$ monitor'; add 'Consider' |
| 2 | GTN administration | Indication for GTN to change to HR > 60 and sys BP > 110 mmHg for EMTs |

### 6.7.10 Advanced Airway Management - Paediatric (≤ 15 years)

| | |
|---|---|
| | No changes recommended |

### 5.7.10 Advanced Airway Management - Paediatric (≥ 8 years)

| | |
|---|---|
| | No changes recommended |

### 4/5/6.7.20 Basic Life Support - Paediatric (≤ 15 Years)

| | | |
|---|---|---|
| 1 | Edit box on right (red writing) | Replace '< 8 years' with 'If puberty has not commenced' |
| 2 | Underneath Commence chest compressions box | 1. Replace '< 8 years' with 'Puberty commenced'<br>2. Switch No and Yes |
| 3 | Replace: | 'Minimum interruptions of chest compressions' 'Maximum hands off time 10 seconds' with 'CPR principal: compression fraction of > 80%' |
| 4 | Add: | 'If AED permits' to 'continue CPR while AED is charging' |

### 1/2/3.7.20 Basic Life Support - Paediatric (≤ 15 Years)

| | | |
|---|---|---|
| 1 | Initial sequence: | Commence with CAB |
| 2 | CPG format: | As per Adult algorithm |

### 4/5/6.7.22 VF or pVT - Paediatric (≤ 15 Years)

| | | |
|---|---|---|
| 1 | Change prn Epinephrine: | from '3 to 5 minutes' to '4 minutes' and add '(every 2nd cycle)' |

### 4/5/6.7.23 Asystole/PEA - Paediatric (≤ 15 Years)

| | | |
|---|---|---|
| 1 | Change prn Epinephrine: | from '3 to 5 minutes' to '4 minutes' and add '(every 2nd cycle)' |

### 4/5/6.7.24 Symptomatic Bradycardia - Paediatric (≤ 15 Years)

| | | |
|---|---|---|
| 1 | Insert box: | CPR principal: compression fraction of > 80% |
| 2 | Epinephrine | Change to 'every 4 minutes (every 2nd cycle) prn' |

### 5/6.7.25 Post-Resuscitation Care - Paediatric (≤ 15 Years)

| | | |
|---|---|---|
| 1 | Split box: | ECG, $SpO_2$ & $ETCO_2$ monitoring into two boxes to read: 'ECG & $SPO_2$ monitoring' and underneath insert a new box 'Consider $ETCO_2$ monitoring' |
| 2 | Replace (red box at bottom of page): | Transport quietly and smoothly with Drive Smoothly |

### 4.7.25 Post-Resuscitation Care - Paediatric (≤ 15 Years)

| | | |
|---|---|---|
| 1 | Correct spelling | hyperthermia |

### 5/6.5.2 Basic & Advanced Life Support - Neonate (< 4 weeks)

| | | |
|---|---|---|
| 1 | Insert box: | Record time of death |
| 2 | Move box: | Delete the word Consider before ECG monitor to assess heart rate and move underneath Request ALS |
| 3 | Delete $O_2$ | 'Give Supplementary $O_2$' |
| 4 | Assess Heart Rate: | Replace 'Assess with Monitor' |
| 5 | Add $O_2$ linked with * | * at CPR and HR 60 – 100 supplemental $O_2$ (≤ 30%) |
| 6 | Insert: | (room air) after Provide 5 positive pressure ventilations |

### 4.5.2 Basic Life Support - Neonate (< 4 weeks)

| | | |
|---|---|---|
| 1 | Insert box: | Record time of death |
| 2 | Move box: | Delete the word Consider before ECG monitor to assess heart rate and move up before Assess respirations, heart rate & colour |
| 3 | Delete $O_2$ | 'Give Supplementary $O_2$' |
| 4 | Insert: | (room air) after Provide 5 positive pressure ventilations |
| 5 | Replace: | Assess before Heart Rate with Monitor before Heart Rate |
| 6 | Replace box $O^2$ Therapy with: | * Supplemental $O_2$ (≤ 30%) link * to CPR and HR 60-100 |

### 5/6.5.1 Pre-Hospital Emergency Childbirth

| | | |
|---|---|---|
| 1 | Add | '(skin to skin preference)' to wrap baby etc |

### 4/5/6.8.x Team Resuscitation

Following review this CPG was redrafted/reworded

### 1/2/3.8.x Team Resuscitation

Following review this CPG was redrafted/reworded

### 2/3.3.4 Asthma – Adult

| | |
|---|---|
| | No changes recommended |

### 2/3.6.6 Heat Related Emergency

| | | |
|---|---|---|
| 1 | Box on left (red writing): | Move water before tea |

### 4/5/6.6.6 Heat Related Emergency – Adult

| | | |
|---|---|---|
| 1 | Box on left (red writing): | Move water before tea |
| 2 | Delete box: | Special Authorisation for Paramedics to maintain IV infusion |

**Review of ACS and ROSC CPGs with Prof Kieran Daly, Clinical Lead ACS Programme**

Prof Daly spoke about and gave his expert opinions on ACS and ROSC issues. There was a discussion with Prof Daly and the members on the updated CPGs from the ILCOR Guidelines 2015. See detail on individual CPG review.

## 11 Review of Sepsis CPG with Dr Vida Hamilton, Clinical Lead Sepsis Programme

### 4/5/6.4.24 Sepsis – Adult

Dr Hamilton gave an overview of the Sepsis care programme and outlined the requirements for Pre-hospital management of sepsis.

**Meeting summary:**

1. Give IV/IM/IO ceftriaxone for suspected meningitis, at risk of neutropenia, severe sepsis and septic shock; remove > 45min requirement
2. Pre-alert for the same groups
3. Add respiratory rate > 30/min to the group of signs of severe sepsis
4. Fluid bolus of 500 ml over 15 mins, review and repeat to 30 mL/kg (2 litres in adult)

5. Patients who have been given antibiotics pre-hospital should be cultured and have antibiotics as per hospital antimicrobial guideline as per normal management, if the antibiotic choice is different no interval delay is required
6. If history of penicillin allergy, screen with 'Have you (they) been hospitalised due to an allergy reaction to penicillin?' If no or clear history of rash-only allergic response, give cephalosporin as only 1-2% cross-reaction.

**Other comments include:**

- The idea is that the patient is flagged prior to arrival in the ED.
- Blood cultures are less likely to be useful after antibiotics
- Once patients arrive in the ED they are treated again even if first dose has already been administered
- Patients are temperature sensitive
- Some red flags identified as follows:
  - Tachycardia > 130
  - Respiratory Rate > 30
  - Altered level of clarity, mental status
  - Low blood pressure
  - Pre-alert if in septic shock
  - When ED is pre-alerted use appropriate language such as SIRS+, infection, septic shock etc
  - Neutropenia has to be identified
  - Flag allergic to penicillin - did allergy result in hospitalisation? If not safe to use
  - Dose: 500 mL over 15 mins; can be given up to 4 times

**Other amendments to the CPG as follows:**

- Insert new box on right; Indication for antibiotic
  - Septic shock
  - Severe sepsis
  - Meningitis suspected
  - At risk of neutropenia
- Signs of shock/poor perfusion;
  - Under Heart rate > 130 insert RR > 30
  - Change Altered mentation to Altered mental status
- Risk stratifier; change SBP to 90 mmHg

- Insert box underneath Risk stratifier; If history of penicillin allergy assess the severity of the reaction and if not life-threatening, i.e. rash, proceed with Ceftriaxone.
- Move Pre alert ED red box to left of ambulance icon and edit to read;

  Pre alert ED if; (add bullet points)

  - severe sepsis
  - septic shock
  - meningitis suspected
  - at risk of neutropenia
- Add red box to right of ambulance icon; If SIRS + infection advise Triage nurse
- Delete Special Authorisation for Paramedics to maintain IV fluids at bottom of CPG

**12 A.O.B**

Next meeting Thursday 28th January 2016

Signed: Dr Mel Murray Date: 31/3/16