The Medical Advisory Group

Meeting Minutes June 5th 2013

PHECC Office, Naas, Co. Kildare

Present		**Apologies**
Mick Molloy (Chair)	David O'Connor	Gerry Kerr
Niamh Collins	Ken O'Dwyer	David McManus
Macartan Hughes	Jack Collins	Dave Irwin
Sean Walsh	Rory Prevett	Seamus McAllister
Valerie Small	Shane Knox	Derek Rooney
Martin O'Reilly	Joseph Mooney	
Gerry Bury	Mick Dineen	**In Attendance**
Declan Lonergan	Neil Reddy	Geoff King (Director)
Mark Doyle	Peter O'Connor	Brian Power
David Menzies	Seamus Clarke	Deirdre Borland
Cathal O'Donnell	Stephen Cusack	

1. Chair's business

The Chair welcomed the assembled members to the meeting, in particular new members to the Medical Advisory Committee (MAC) and acknowledged apologies from absent members.

Brian Power gave a brief presentation on the workings of the MAC concentrating on the development process of new and updated CPGs.

The Director informed the group that the University of Limerick Centre for Prehospital Research (C.P.R.) have been commissioned to carry out an examination of the evidence base and practitioner experience base of our CPGs. C.P.R. have been extended an invitation to present their proposed methods of conducting the research to the next MAC meeting.

Mark Doyle queried the effect of the National Clinical Effectiveness Committee (NCEC) on the work of MAC. The Director confirmed that both PHECC and the Mental Health Commission are exempt from the NCEC requirements.

2. Minutes

Dr. Diarmuid Smith (via email) from the HSE Diabetic Programme supplied the following information in relation to a query regarding the treat and referral of patients who have been treated with Glucagon during a hypoglycaemic episode.

1. People who remain drowsy after injection of glucagon or who are on their own with no secondary carer should be brought to ED.

2. People who have recovered and have a carer/partner/spouse with them do not necessarily need to be brought to ED but should be asked to contact their diabetes centre or GP as soon as possible.

Sean Walsh asked that more specific clarity be sought in relation to IV Dextrose. It was agreed to contact the HSE Diabetes Programme with regard to this.

Brian Power also informed that group that thus far there has been no response from the Obstetric Programme regarding queries submitted on behalf of the previous MAG.

Resolution: That the minutes from the Medical Advisory Group meeting held on the 29th November 2012 be agreed subject to the changes outlined above.

Proposed: Gerry Bury **Seconded:** Cathal O'Donnell

Carried without dissent

3. CPGs

3.1 Treat & Referral

Mark Doyle questioned the temp of 38°C as a normal temperature in the Clinical Care Pathway decision CPG for Treat and Refer. He asked that this be changed to 36°C to 37.5°C

A Response from the HSE Epilepsy Programme regarding Treat and Refer – Isolated Seizure was included in the meeting papers. They gave preliminary endorsement for the guidelines with the following caveats:

1. They do not fulfil the criteria of the National Clinical Effectiveness Committee

2. They wish to see some tracking and audit information which will advise on adverse outcomes over the next 12 to 18 months.

The Director said that he would communicate with the NEP to advise them that all MAC decisions are put before Council for ratification where consumer interests are represented. He also said that he would reassure them that a research study would track all patients.

The response from the Diabetes Programme in relation to Glucagon was read to the meeting as it arrived too late for the meeting papers. Sean Walsh requested that similar advice be obtained in relation to IV dextrose and an endorsement from the Diabetes programme for Treat and Refer following IV Dextrose use.

Resolution: That the Medical Advisory Committee recommends to Council the following CPGs subject to agreed changes and endorsement.

- CPG 5/6.9.1 Clinical Care Pathway – Treat & Referral
- CPG 5/6.9.2 Hypoglycaemia – Treat & Referral.
- CPG 5/6.9.3 Isolated Seizure – Treat &Referral

Proposed: Niamh Collins **Seconded:** Cathal O'Donnell

Carried without dissent

3.2 ACS CPG update

- ACS advisory forum meeting report

A report from the national Acute Coronary Syndrome Programme was included in the meeting papers. Included was a request that Ticagrelor replace Clopidogrel for STEMI. The Director asked the committee to keep in mind that any new medications will place a training requirement of services and not result in an immediate change; there would also be a requirement to evoke interim directives until such time as the medication could be entered onto the 7th Schedule.

Seamus Clarke raised concerns regarding patients who may have been administered Clopidogrel by a GP and then transported by an AP who may administer Ticagrelor. He asked that any such change be communicated with the ICGP. It was agreed also to refer this matter to the ACS Programme for clarification.

Mark Doyle expressed his concerns of how the ACS Programme communicates such requests and asked that an official communication with PHECC rather than meeting minutes be submitted.

The Director committed to write to Kieran Daly for clarification.

Acute Coronary Syndrome CPG Changes.

The ACS CPG was included in the papers for review.

Cathal O'Donnell asked that the helicopter box be removed from the CPG. He also indicated that despite investing heavily in training and medications, no pre-hospital thrombolysis has occurred in some time and this will need further consideration.

David O'Connor asked for clarity within the PCI centres as patients with possible left bundle block and difficulty diagnosing MI. It was suggested that "discuss with PPCI Staff" be changed to "Discuss with PPCI Physician"

3.3 Inadequate Respirations – Adult 5/6.3.2

Brian Power presented the Inadequate Respiration CPG which MAC has requested updating. Niamh Collins expressed a preference for the previous version, she also questioned why bronchospasm is coming under an airway problem rather than breathing. Sean Walsh asked that the differentiation be made between respiratory distress and respiratory failure.

Brian Power agreed to bring back the original CPGs for the committee's information at the next meeting.

3.4 Inadequate Respirations – Adult – (4.3.2) & (3.3.2)

Sean Walsh questioned the inclusion of "max 10 per minute" for ventilations. Neil Reddy suggested "aim for" as a better turn of phrase. Macartan Hughes said that the EMT skills matrix does not include measurement of PEF so this should be removed. It was agreed to exclude aspects of indications for the various severity levels of asthma that were not within their scope of practice. It was also stated that for responder levels in particular that such items should be in "plain english". It

should also be stated that if moderate, severe, or life threatening call ALS. The addition of "consider" prior to positive pressure ventilations be included.

Gerry Bury questioned if the current system of reviewing these CPGs was the most efficient. He suggested that if review subgroups meet to view CPGs initially it may aid the group to focus on the higher level issues.

It was agreed that Gerry Bury, Niamh Collins, Sean Walsh, Jack Collins, Ken O'Dwyer and Joseph Mooney form a trial subgroup to review a set of CPGs on inadequate respirations working with Brian Power.

3.5 Poisons – Adult 6.4.23

An updated poison CPG was included in the papers for the committee's review.

Sean Walsh questioned the inclusion of cyanide, as he felt it may distract from more likely forms of poisoning such as carbon monoxide. The question arose as to whether or not this CPG was required.

Niamh Collins asked that the group consider specifying IN administration of midazolam in the case of poisoning due to psychostimulant use to avoid approaching a potentially unstable patient with a sharp. The Chair suggested the IN Naloxone can be followed by IM administration. Gerry Bury asked that the importance of reversing apnea not be lost.

Discussion ensued regarding the 10 mg max dose of Naloxone. It was agreed to leave it at 2 mg. It was also agreed that the IN dose for Naloxone is 0.8 mg

3.5.1 Poisons – Adult - 4/5.4.23

Brian Power outlined the only difference was the administration of Naloxone at EMT level. A discussion ensued on the appropriateness of adding Naloxone to the EMT medication matrix. Following assurance that it would be accommodated in the training standards the committee agreed. The dose of IN Naloxone to be increased to 0.8 mg

Resolution: That the Medical Advisory Committee recommends to Council the CPG Poison Adult 4/5.4.23 subject to agreed changes.

Proposed: Michael Dineen **Seconded:** Rory Prevett

Carried without dissent

3.5.2 Poisons – Adult 2/3.4.23

The Naloxone dose for IN to be increased to 0.8 mg. Gerry Bury outlined the Naloxone Programme for Drug workers being developed by UCD.

It was pointed out that Naloxone is a prescription only medicine and it may take some effort with the Department of Health to enable non registered people to be permitted to administer it.

The Director outlined that PHECC would engage with the Chief Pharmacist in the DoH on the matter, however due to the European Presidency it would be at least July before a meeting would occur.

The Director informed the committee that there may be a benefit of certain trained personnel such as community drug workers being able to administer naloxone in specific cases of opiate poisoning. It was agreed that this CPG be used for a test case subject to special authorisation

Resolution: That the Medical Advisory Committee recommends to Council the CPG Poison Adult 2/3.4.23 subject to agreed changes and authorisation of Naloxone for responders.

Proposed: Valerie Small Seconded: Niamh Collins

Carried without dissent

3.6 Hypothermia 5/6.4.24

When the Hypothermia CPG was being reviewed a question was raised as to whether to follow AHA or ERC guidelines on hypothermia temperature for mild, moderate and severe. The majority present expressed a preference for AHA. It was suggested that ≤35.9^{o}C should be used as upper limit for hypothermia. It was agreed to change mild to 35.9^{o}C -34^{o}C and moderate to 33.9^{o}C -30^{o}C.

Resolution: That the Medical Advisory Committee recommends to Council the CPG 5/6.4.24 Hypothermia subject to agreed changes.

Proposed: Mark Doyle **Seconded:** Peter O'Connor

Carried without dissent

3.7 Symptomatic Bradycardia – Paediatric

Brian Power advised that a practitioner pointed out the anomaly of tachycardia being included as signs of poor perfusion in the Symptomatic Bradycardia Paediatric CPG. It was agreed that tachycardia be removed from the CPG as it could be misleading and that it is reinforced that the list of signs of inadequate perfusion include the word "collective".

Resolution: That the Medical Advisory Committee recommend to Council CPG 4/5/6.4.9 Symptomatic Bradycardia – Paediatric, subject to agreed changes

Proposed: Jack Collins Seconded: Valerie Small

Carried without dissent

4. Queries re CPGs and medications

4.1 Query regarding fentanyl used in combination with other analgesia

A letter from an advanced paramedic seeking clarification on repeat administrations of IN fentanyl and using it in combination with other analgesics was included in the meeting papers. Sean Walsh confirmed that the initial dose of IN fentanyl would offer sufficient pain relief to allow the

practitioner to carry out interventions such as dressing or splinting. He also reiterated that there was no issue with following up IN fentanyl with PO or IV morphine.

4.2 Administration of Amiodarone following ROSC

Cathal O'Donnell outlined a number of instances where Amiodarone was administered while contrary to the CPG with positive outcomes. He asked that the group reconsider revising the CPG to include Amiodarone administration, adding a "does not exceed max dose" caveat and remove the reference to VF.

Niamh Collins suggested that the Practitioner should be permitted to administer Amiodarone even it had not been given in the instance of a cardiac arrest, ideally 300 mg over 1 hr or 150 mg over 10 mins up to a maximum of 450 mg.

It was agreed that if an un-stable V Tachy persisted for several minutes post ROSC or developed post ROSC then an Amiodarone infusion should be commenced, regardless if Amiodarone was administered during the arrest or not.

The infusion is a one off 150 mg in 100 mL over 10 minutes. The medication formulary for Amiodarone will require updating to reflect this also.

Gerry Bury asked that caution be used when exercising prehospital cooling. Martin O'Reilly agreed that there was a risk in starting cooling if the receiving hospital did not have a policy of active cooling. This CPG will be updated and returned to the next MAC meeting for consideration.

5. Draft Ticagrelor formulary

A draft entry to the medication formulary for Ticagrelor was included in the papers for the committees review. Seamus Clarke asked that the contraindications be checked by a pharmacologist.

Resolution: That the Medical Advisory Committee recommends to Council the Ticagrelor Medication Formulary subject to agreed pharmacological review.

Proposed: Cathal O'Donnell **Seconded:** Mark Doyle

Carried without dissent

6. Pronouncement of death by paramedics and advanced paramedics

Brian Power introduced a policy for the verification of expected death by HSE senior nursing staff. The Director outlined his engagements with the Dublin Coroner to date. It is hoped that PHECC can introduce a pronunciation of death policy for Paramedics and Advanced Paramedics in conjunction with the Coroner. The group will be informed of developments as they occur.

7. IAEM Guidelines Analgesia in the ED

Guidelines for Emergency Department analgesia developed by the Irish Association of Emergency Medicine were included in the meeting papers for the committee's information.

8. Emergency Department Mental Health Transport Guide

Mark Doyle gave a brief background to the guide. Macartan Hughes questioned the requirement for an emergency ambulance, in particular why an emergency ambulance is required for a voluntary admission. Brian Power questioned the need for the CEN categories. Seamus Clarke expressed a concern that Paramedics be expected to transport a patient whom the admissions team have deemed to be of too high a risk for their services. Mark Doyle stressed that the purpose of the guide was to ensure that patients requiring treatment for a mental illness be treated on par with those suffering a physical ailment.

It was agreed that the requirement for an emergency ambulance for any level was not appropriate; however, for an emergency transfer it could be considered. PHECC will communicate these findings back to the EMP.

9. Resuscitation Room Infusion guidelines

Resuscitation Room Infusion guidelines were included in the meeting papers for the committee's information.

10. Paramedics Australasia – Paramedicine Role Descriptions

A guide to Paramedicine Role Descriptions by Paramedics Australasia was included in the papers for the committee's information.

11. A.O.B

The Chair thanked the group for their contribution to the meeting**.** June 27th was selected as the date for the next meeting.

Signed: _____ Date:_____

The Medical Advisory Group

Meeting Minutes June 27th 2013

PHECC Office, Naas, Co. Kildare

Present		**Apologies**
Mick Molloy (Chair)	David O'Connor	Seamus Clarke
Niamh Collins	Ken O'Dwyer	David McManus
Macartan Hughes	Jack Collins	Stephen Cusack
Sean Walsh	Rory Prevett	Seamus McAllister
Gerry Kerr	Shane Knox	Derek Rooney
Martin O'Reilly	Joseph Mooney	Valerie Small
Gerry Bury	Mick Dineen	Neil Reddy
Declan Lonergan	Peter O'Connor	**In Attendance**
Mark Doyle	David Hennelly	Geoff King (Director)
David Menzies	Shane Mooney	Brian Power
Cathal O'Donnell		Anne Keogh
Dave Irwin		

1. Chair's business

The Chair welcomed the assembled members to the meeting and acknowledged apologies from absent members.

2. Minutes

Sean Walsh stated that he may have been mis-quoted and would like 4.1 in the minutes changed to reflect that he was happy for 'IN Fentanyl may be followed with Morphine if pain management was still an issue for longer journeys'.

Declan Lonergan raised an issue with point 4.2 in the minutes stating that some of the discussion around cooling following ROSC was not included. The minutes to include "a discussion ensued on the application of current practice on therapeutic hypothermia pre-hospital following ROSC".

Resolution: That the minutes from the Medical Advisory Committee meeting held on the 5th June 2013 be agreed subject to the changes outlined above.

Proposed: Ken O'Dwyer **Seconded:** Niamh Collins

Carried without dissent

3. Matters Arising

David O'Connor raised an issue with point 4.1 in the minutes asking if the Medication formulary could be changed to reflect the agreed position on Fentanyl and Morphine for pain management. Niamh Collins expressed that it include "must not exceed 2 or 3 doses".

Brian Power advised the committee that he had been in contact with Dr Diarmuid Smith from the HSE Diabetic Programme in relation to the treat and referral study and in particular treat and

referral following IV Dextrose. It was outlined to Dr Smith how treatment modalities i.e. IV Dextrose, Glucagon and Glucose Gel will be compared during the study. Brian Power read Dr Smith's response to the meeting. "I would encourage you to proceed with your research. Your research may help to guide us in the future in how best to manage patients. Hopefully your research will help the management of this important clinical decision".

The reply from Prof Kieran Daly, Clinical Lead National ACS programme, was tabled at the meeting. Following discussion on its content it was agreed to accept their recommendations.

Resolution: That the Medical Advisory Committee update the ACS CPG to reflect the changes recommended by the ACS Programme and recommend to Council the agreed changes.

Proposed: Gerry Bury **Seconded:** Martin O'Reilly

Carried without dissent

3. CPGs

3.1 Symptomatic Bradycardia – Paediatric

Council returned the Symptomatic Bradycardia – Paediatric CPG with a query in relation to commencing CPR on patients up to 14 years old. Sean Walsh stated that it is not age that is the question but inadequate perfusion. The process in ORHC is to commence CPR if the patient has a pulse rate <60 and inadequate perfusion. A member of Council had suggested that 'unresponsive' would be more definitive than altered level of consciousness. Niamh Collins stated that we should not wait until unresponsive. David Menzies stated if the child is conscious do not commence CPR. Mark Doyle asked the question is there anything in the guidelines CPR based on low heart rate in Children and Adults. Brian Power to check. Sean Walsh stated the APLS Manual revised in 2005 is a reference guide, he will forward reference chapter to Brian Power. David Irwin stated the ILCOR guidelines have no age. Sean Walsh requested that "inadequate perfusion" be the main criteria for CPR commencement.

On this CPG Gerry Bury raised the issue of 'consider advanced airway management' and stated that it may lead to confusion as it does not define the age profile. Brian Power stated that there is a CPG for advanced airway management for Paramedic which authorises supraglottic airway insertion in patients over 8 years old. Gerry Bury stated if over 8 and reference consistently. Niamh Collins suggested change to 'go to Advanced Airway CPG'. Gerry Bury suggested taking out the Consider advanced airways box, this was agreed by Mark Doyle. Geoff King noted that HSE are now recognising the Paediatric age as up to 16 years. The Chair asked could this be re-visited at the next meeting after all references have been submitted to Brian Power including ERC, APLS and CPR Clinical. The Chair stated that Brian Power will come back to the group with information.

3.2 ROSC CPG

Post-Resuscitation Care- Adult.

Brian Power stated changes were made. A document that had been submitted by Niamh Collins was tabled. Niamh Collins explained that this document was created by her for use in a hospital setting. She suggested that it could be adapted for use in the pre-hospital setting. It was noted that a bundle of care is more beneficial that single interventions. She suggested that a reference be made to O_2 and to titrate down. Gerry Bury stated that the CPG in relation to Amiodarone administration post ROSC required more clear direction. The statement 'persistent tachycardia for several minutes post ROSC' was of concern. It was agreed that this be changed to 'ventricular tachycardia for 3 to 5 minutes post ROSC' . Gerry Bury noted that there are training issues and there needs to be informed clinical decisions made, training is the underpinning of knowledge. Brian Power noted that the CPGs are not a training manual.

Gerry Bury also raised the concern about commending cooling and it not being continued in hospital. Brian Power suggested cooling pre-hospital only commences the process. Much discussion followed about cooling. Niamh Collins noted a Swedish expert's opinion on cooling. The issue of continuing cooling on arrival at the Emergency Department was discussed. Cathal O'Donnell stated some clinicians were not embracing cooling and that there is uneven practice in Emergency Departments across the country. Gerry Bury stated that there was limited evidence and the possibility of legal risk for both the Ambulance Service and PHECC. Geoff King requested that the issue of continued cooling be pursued nationally before pulling it apart. Brian Power advised the committee that he had not heard back from Dr Una Geary in relation to cooling following ROSC. It was suggested that contact be made with Dr Conor Deacy on the issue as he has conducted studies on this matter. The Critical Care Programme should also be contacted as it is ultimately an ICU issue on the management of therapeutic hypothermia. Gerry Bury also suggested that the Corcoran Review group should be consulted. It was agreed to await communication from the Emergency Medicine Programme prior to any decision on the issue. The Chair advised that 'active' be removed from the CPG and 'avoid hyperthermia' be included. Gerry Kerr suggested that the information box with detail of active cooling process be removed. It was agreed that this be removed.

It was also suggested that a 12 lead ECG be placed higher on the CPG than cooling.

3.3 Inadequate Respirations – review sub group

Gerry Bury stated that the subgroup had not reached conclusions on their deliberations. The subgroup are meeting again later that day. He stated that very useful discussion took place on key CPGs. 1. On presentation of materials and options available and 2. Content. Views will be presented back to MAC. Much discussion took place on the CPP's and CPG's used in the Queensland Ambulance Service. Geoff King stated he would liaise with Medical Director of the Queensland Ambulance Service about collaboration regarding CPP's and CPG's. The Chair advised that this be re-visited at the next meeting.

4. Queries re CPGs and medications

4.1 Proposed inclusion of LT Tube on the EMT Skills Matrix

Cathal O'Donnell informed the committee of the National Ambulance plan to standardise LT tubes as the supraglottic airway of choice for all practitioners including EMTs in the HSE National Ambulance Service. As EMT's will be dispatched to Echo calls it was appropriate that the advanced airway device was standard throughout. A concern was raised about all EMTs using a cuffed supraglottic tube as their use was more complex than an uncuffed tube. Brian Power suggested that a 'Special Authorisation' be included on the CPG which will enable EMTs to use cuffed supraglottic airways subject to appropriate training and Medical Directors sign off.

Resolution: That the Medical Advisory Committee recommends to Council that a special authorisation be included on the Advanced Airway – Adult CPG (4.3.1) to permit EMTs to use cuffed supraglottic airways subject to appropriate training and Medical Directors sign off.

Proposed: Mick Dineen **Seconded:** David Menzie

Carried without dissent

5. KPI - update

Mark Doyle informed the committee that a Consensus Conference is scheduled for the 4th of October to be held in the Naas area. Approximately 50-100 people will be in attendance.

6. Defibrillator Bill

The Public Health (Availability of Defibrillators) Bill 2013 is currently progressing through the Oireachtas. Discussion ensued about the Good Samaritan law and no legal duty or care. The issue of defibrillator being locked up in premises with no currently trained responder to operate them was discussed at length. Their usefulness in such a scenario was questioned. The following comments/ feedback emerged from the MAC discussion.

1. The terminology 'automated external defibrillator' and 'semi-automated defibrillator' should be changed to 'Advisory External Defibrillator' as there are no automated defibrillators in Ireland and they can be potentially dangerous.
2. It was felt that a 'sports club' in the list of designated places had no clear definition i.e. a golf society although technically a sports club does not necessarily have a premises in which an AED may be located.
3. Similarly premises with an attendance of 100 per day would be very small numbers to justify locating an AED.
4. It does not take into account that premises such as a sports stadium could be vacant most of the time and when occupied for an event pre-hospital emergency care providers will be in attendance with AEDs.
5. Geoff King gave the committee some background on the National Defibrillator Register currently being conducted by Gearoid Oman. He suggested that it may be more appropriate to register people rather than machines.
6. Approximately two thirds of arrests happened in the home therefore this bill will not have the impact that it possibly is anticipating on cardiac arrest saves.
7. It was noted that First Responders co-ordinated with the Ambulance Service such as in County Wicklow achieve better results than AEDs located at specified points.

8. It was recommended that the OCHAR data be used should a submission be made in relation to the Bill.
9. A major concern emanating from the committee is the potential for the negative effect from this bill from business and sports authorities as it would be seen as costly and bureaucratic with minimum actual use of the AEDs ever occurring.
10. Communities have a willingness to look after their own. The Bill could have the effect to drive volunteers away as the experience is that once something becomes compulsory or enforced volunteers drift off and commercial interests will emerge. This Bill it is felt will exclude communities.

The Chair requested that Council be informed of these views.

7. AOB

An email from Joseph Mooney, committee member, was tabled for discussion. It relates to EMT queries which contained four points to be addressed by the committee.

1. Query relating to head injury CPG. Is the practitioner meant to remove a patient from a long board and place him into a vacuum mattress? Brian Power pointed out that this was 'consider vacuum mattress' and not a directive. It was pointed out that for short journeys this was not required, however the practitioner should be cognisant of the duration the patient is on the long board.

2. Query relating to the treatment of epistaxis. Is there a requirement to transport a patient following successful treatment of an epistaxis episode? All practitioner CPGs currently end in transportation of patients, except for the new treat and referral CPGs which have not been released yet. Should a patient present at an event it is the responsibility of the Medical Officer of the event, or by extension of the CPG approved pre-hospital emergency care service provider for small events without medical cover, to have a clear policy in place in relation to treat and referral/discharge. Following a 999 call all patients currently are transported unless they decline. Discussion followed in relation to clinical care treatment at events.

3. Query relating to treatment of nausea /vomiting for EMTs. Should EMTs be authorised to administer anti-nausea / vomiting medication? David Irwin stated that currently Paramedics cannot administer anti-nausea medications. The question of transport time and what benefit patient would get from an anti-nausea treatment was discussed. Brian Power stated that Cylicine is on the 7th Schedule for paramedics and EMTs should MAC wish to extend its use to these clinical levels. Niamh Collins stated that on interfacility transports the transferring facility should treat for nausea before transport. Gerry Bury expressed concern about the side effects from anti emetics. It was agreed that it is not appropriate to extend this care level to paramedics or EMTs at this time.

4. Query relating 12 lead ECG use for EMTs. Currently 12 lead ECG is outside the scope of practice of EMTs. Macartan Hughes stated there would be little benefit in carrying out training which could not be used in the near future. It was agreed that it is not appropriate to extend this care level to EMTs at this time.

The HSE National Ambulance Service currently use Epistatus® (buccal Midazolam) as a management of seizures by advanced paramedics. As part of the introduction of buccal Midazolam for paramedic

use it was identified that Buccolam® a new product on the market was licenced and the Irish Medicines Board could not stand over the continued use of Epistatus® which is un-licenced. Buccolam® however is only licenced for patients between 3 months and less than 18 years old. The Irish Medicines Board states that if a licenced product is available and the service choose not to use it and use another product the Medical Director is personally responsible for adverse effects. An e-mail from Cathal O'Donnell outlining the issue and a paper identifying the impact of introducing Buccolam® were tabled at the meeting. Cathal O'Donnell informed the committee that the HSE NAS were planning on introducing Buccolam® (buccal Midazolam) in age specific pre-loaded syringes. The pre-loaded syringes were demonstrated to the committee. Based on the current dose, 0.5 mg/Kg these pre-loaded syringes would be under dosing for most of the age groups up to 9 years. Sean Walsh pointed out that OLHC dose is 0.3 mg/Kg for buccal Midazalom. Sean Walsh to send OLHC formulary to Brian Power. Details to be presented at the next MAC meeting for decision.

David Hennelly asked about introduction of Tranexamic Acid as a treatment for haemorrhage. Brian Power informed the committee it had been included in the draft for change to the 7th schedule and when updated then it will be introduced onto the haemorrhage CPG. Geoff King informated the committee that a new Chief Pharamisist has been appointed, however with the European Presediency committements a formal meeting to arrange changes to the 7th schedule will not be available until after the end of June this year.

The Chair thanked the group for their contribution to the meeting**.** September 26th was selected as the date for the next meeting.

Signed: _____ Date:_____

The Medical Advisory Group

Meeting Minutes September 27th 2013

PHECC Office, Naas, Co. Kildare

Present

Mick Molloy (Chair)
Niamh Collins
Macartan Hughes
Derek Rooney
Cathal O'Donnell
Neil Reddy
Martin O'Reilly
David Menzies
Gerry Bury
Dave Irwin
Joseph Mooney
Declan Lonergan
Mick Dineen
David O'Connor
Ken O'Dwyer
Jack Collins
Rory Prevett
Stephen Cusack
David Hennelly
Shane Mooney

Apologies

Seamus Clarke
David McManus
Seamus McAllister
Gerry Kerr
Thomas Keane
Valerie Small
Sean Walsh
Shane Knox

In Attendance

Brian Power
Deirdre Borland
Prasit Wuthisuthimethawee

1. Chair's business

The Chair welcomed the assembled members to the meeting, in particular Dr Prasit Wuthisuthimethawee from Harvard University who was visiting various pre-hospital emergency care facilities within Ireland and was invited to observe the Medical Advisory Committee meeting by the Chair. Apologies received were acknowledged.

A memo from Dr. Geoff King, PHECC Director to committee chairpersons in relation to "Code of Practice for the governance of state bodies" was distributed to those present and read into the minutes as follows:

Code of Practice for the Governance of State Bodies as issued by the Department of Finance

Council has formally adopted and complies with the Code of Practice for the Governance of State Bodies along with the Ethics and Standards in Public Office legislation. The Code of Practice provides a framework for the application of best practice in corporate governance by both commercial and non-commercial state bodies and their subsidiaries.

It is not feasible to have a code of practice which will specifically provide for all situations which may arise. PHECC will take all reasonable steps to ensure that activities comply with the principles of corporate governance. All PHECC Committees should function according to the highest standards of integrity and ethics.

In this respect PHECC Committee members should be advised that;

Members

- *shall as the need arises declare either a direct or indirect interest in any company interacting with PHECC; and*
- *shall absent themselves from the meeting room for any deliberations, vote or decision of the Committee relating to such interests,*

Respect the confidentiality of;

- *the proceedings of Committee meetings*
- *sensitive information and commercially sensitive information (including but not limited to future plans or details of major organisational or other changes)*
- *personal information.*

(Ref - Code of Practice for the Governance of State Bodies as issued by the Department of Finance)

2. Minutes

Jack Collins indicated that there was a typographical error in the minutes and that the discussion regarding 4.1 LT tubes should read "cuffed" rather than "uncuffed" tubes'.

> **Resolution:** That the minutes from the Medical Advisory Committee meeting held on the 27th June 2013 be agreed subject to the changes outlined above.
>
> **Proposed:** Jack Collins **Seconded:** Joseph Mooney
>
> Carried without dissent

3. CPG's

3.1 Paediatric Bradycardia

Draft CPG 4/5/6.4.9 Symptomatic Bradycardia – Paediatric (≤ 13 years) was introduced by Brian Power for approval. The Committee were asked to give consideration to the necessity or otherwise of splitting the CPG into <8 years and >8 years categories.

The following points were raised;

Dave Hennelly expressed a concern that making an assessment should be based purely clinical presentation and not solely on age. Niamh Collins agreed with this and asked that "if unresponsive and poor perfusion" be added to the decision box. Shane Mooney asked that the phrase "irritability" be removed. There was no agreement to split the age category of the CPG.

> **Resolution:** That the Medical Advisory Committee approve CPG 4/5/6.4.9 Symptomatic Bradycardia – Paediatric (≤ 13 years), subject to the changes outlined.
>
> **Proposed:** Niamh Collins **Seconded:** Macartan Hughes
>
> Carried without dissent

3.2 Post Resuscitation Care – Adult

Draft CPG 5/6.4.14 Post Resuscitation Care – Adult was introduced by Brian Power for approval. He informed the group that the CPG included in the papers included changes requested at the last MAC

meeting he also gave a brief overview of a draft report from Dr Una Geary, Consultant in Emergency Medicine, Chair of the Emergency Medicine Programme regarding the use of therapeutic hypothermia within Irish Emergency Departments. The report indicated that 28 (64%) of hospitals were providing active cooling with their Emergency Departments, five however could not guarantee that cooling could be continued at all times. A discussion ensued on whether or not practitioners should commence cooling if there was no guarantee that the receiving hospital could continue it. The possible risks to the patient should this situation arise were also discussed. Reference was made to the paper from Dr. Conor Deasy, Consultant in Emergency Medicine on therapeutic hypothermia and his support for it in the Irish setting.

Niamh Collins asked that the following changes be made to the CPG; cooling should be one of the latter stages on the CPG, and that more than 500 mL NaCl should be indicated. She also asked that "Symptomatic Bradycardia" be changed to "Symptomatic Arrhythmia" with routes to Bradycardia and V. tachy.

It was deemed that further discussion was warranted and that this CPG should be revisited at a future meeting.

3.3 Pain management – Adult

A draft update of CPG 4/5/6.2.6 Pain Management – Adult was introduced by Brian Power for approval. The group was also asked if Fentanyl should be made available to Adult patients as there were many instances of practitioners seeking medical oversight to do so. David Hennelly suggested that it also be made available for I.V. and I.O access. Stephen Cusack cautioned strongly against this as fentanyl given I.V or I.O has higher instances of causing respiratory arrest than morphine. The Chair suggested that ketamine may be a useful alternative to be made available to the practitioners; he invited David Hennelly to research this and report back to the Committee. It was agreed that in the case on I.N administration of Fentanyl for adults it should read "≥ 16 years" and delete the reference to weight for this group.

> **Resolution:** That the Medical Advisory Committee approve CPG 4/5/6.2.6 Pain Management – Adult subject to the change outlined.
>
> **Proposed:** Mick Dineen **Seconded:** Cathal O'Donnell
> Carried without dissent

3.4 Report from CPG sub group inadequate respiration CPGs

Gerry Bury carried out a presentation on behalf of the CPG subgroup detailing their proposals on the development of CPGs, including drafts of how the group concluded CPGs could be formatted.

Brian Power suggested that a more streamlined way of managing the CPG development process would be for a subgroup to carry out preliminary work and present CPGs to the MAC.

A discussion ensued regarding the scope of MAC regarding the packaging of CPGs. Shane Mooney stressed the importance of utilising technology in delivering CPGs to the practitioner. Stephen Cusack stressed that the role of MAC was to deliver the clinical content of CPGs not to get involved in the packaging and educational aspects of CPGs.

Cathal O'Donnell said that he was under the impression that the subgroup was tasked with reviewing the existing CPGs, in particular the Inadequate Respitations CPG. Gerry Bury offered to continue the work of the sub-group and present draft CPGs to future meetings.

3.5.1 Asthma – Adult AP/P/EMT

Brian Power introduced the draft CPG 5/6.3.4 Asthma – Adult for the Committee's approval. The following changes were suggested. David Menzies asked that the SpO_2 monitor indicator should be move to higher up on the CPG. Brian Power indicated that this was part of the respiratory assessment and that SpO_2 monitoring was an on-going process following the 1st intervention. Niamh Collins asked that IM Hydrocortisone be removed. Martin O Reilly asked that the ambulance graphic on the left be removed. It was also agreed that "go to appropriate CPG" be removed.

> **Resolution:** That the Medical Advisory Committee approve CPG 5/6.3.4 Asthma – Adult subject to the changes outlined.
>
> **Proposed:** Joe Mooney **Seconded:** Macartan Hughes
> Carried without dissent

3.5.2 Asthma Paediatric (≤13 years) AP/P/EMT

Brian Power introduced the draft CPG 4/5/6.7.18 Asthma - Paediatric (≤13 years) for the Committee's approval. The following changes were requested: Change to the same format as the adult asthma CPG. Remove a typo of "repeat x 1". Change the entry point to read asthma/bronchospasm. Remove the reference to Magnesium Sulphate. Remove reference to IM and the reference to 12 years 130 mg dose for hydrocortisone. It was agreed the max does of Hydrocortisone is 100 mg for > 6 years old.

> **Resolution:** That the Medical Advisory Committee approve CPG 4/5/6.7.18 Asthma Paediatric (≤13 years) subject to the changes outlined.
>
> **Proposed:** Niamh Collins **Seconded:** Mick Dineen
> Carried without dissent

3.5.3 Asthma Paediatric (≤13 years) ERF level

Brian Power introduced the draft CPG 3.7.18 Asthma - Paediatric (≤13 years) EFR for the Committee's approval. It was suggested that the entry point be changed from bronchospasm to wheeze, removing the reference to audible wheeze. It was suggested that the words "inhaler" and "own salbutamol" be included to avoid confusion.

Resolution: That the Medical Advisory Committee approve CPG 3.7.18 Asthma - Paediatric (≤13 years) ERF level subject to the changes outlined.

> **Proposed:** David Menzies **Seconded:** David Irwin
> Carried without dissent

3.6 Delphi

Brian Power thanked the Committee members who submitted Delphi feedback on CPGs circulated prior to the meeting and stressed the importance of all committee members contributing to the Delphi process. He expressed disappointment with the 57.7% response rate.

3.6.1 Heat Related Emergency – Delphi feedback

Delphi Result: 60% agree; 33.3% disagree

Draft CPG 4/5/6.6.10 Heat Related Emergency – Adult was circulated for Delphi feedback prior to the meeting. David Menzies requested that the reference to 38.8^{o}C be removed and that "Environmental" heat emergency be specified. Niamh Collins asked that the phrase "cool slowly" be included. Neil Reddy asked that the CPG be formatted as per the Asthma CPG into the categories of mild, moderate and severe. David O'Connor asked that the reference to Calcium Gluconate be removed and the volume of fluids be increased to 1L. It was agreed that the patient should not be overcooled. It was agreed that this CPG will be discussed at a future meeting.

3.6.2 Pyrexia Adult

Delphi Result: 73.3% agree; 20% disagree

Draft CPG 4/5/6.4.32 Pyrexia – Adult was circulated for Delphi feedback prior to the meeting. It was agreed to remove reference to IV infusion. A discussion ensued on sepsis in the pre-hospital environment. It was agreed to establish a sepsis sub group consisting of David Menzies, Brian Power, David O'Connor and Joseph Mooney. Denis Daly (AP) will also be invited to join the group as he has conducted a study on the matter. It was agreed that this CPG will be discussed at a future meeting when the subgroup has been formed.

3.6.3 Heat Related Emergency – Paediatric

Delphi Result: 60% agree; 33.3% disagree

Draft CPG 4/5/6.7.20 Heat Related Emergency – Paediatric was circulated prior to the meeting for Delphi feedback. It was agreed to format the lay out as per the Adult Pyrexia CPG and to delete reference to IV fluids and calcium gluconate.

3.6.4 Pyrexia Paediatric

Delphi Result: 66.7% agree; 20% disagree

Draft CPG 4/5/6.7.19 Pyrexia – Paediatric was circulated for Delphi feedback prior to the meeting. Brian Power circulated the recommendations from the NICE regarding administration of antipyretics to under 5 years. The Committee suggested that this CPG be brought back to a future meeting where Sean Walsh was present to give his opinion.

3.6.5. Acute Pulmonary Oedema

Delphi Result: 71.4% agree; 7.1% disagree

Draft CPG 5/6.3.5 Acute Pulmonary Odema was circulated for Delphi feedback prior to the meeting. David Menzies questioned the inclusion of CPAP given the costs and training implications of its introduction. Brian Power outlined the principle of MAC was to consider the patient benefit and costs were a matter for Council and pre-hospital emergency care service providers.

Niamh Collins asked that it be specified to conduct a 12 lead ECG and if STEMI or Non-STEMI are present treat via appropriate CPG. She also asked that if data could be analysed to capture the use of furosemide this could quantify the requirement for CPAP. David Hennelly suggested that IMSCAN could do this and that the centre for pre-hospital research in Limerick could assist with research as there are other potential conditions that may also benefit from the introduction of CPAP/BIPAP. It was agreed to consider CPAP for COPD and asthma. Dr Ciaran Brown's research will be reviewed on this issue. It was suggested that Bradycardia be also considered for this CPG.

3.6.6 Opioid Overdose

Delphi Result: 80% agree; 6.2% disagree

Draft CPG 1.3.2 Opioid Overdose was circulated for Delphi feedback prior to the meeting. Brian Power explained that it is purposed that this CPG would be enacted with the use of an exception register and those permitted to use this CPG must be working on behalf of a CPG approved organisation and authorised to use it. It was envisaged that it would be targeted at health care workers in drug clinics and prisons. PHECC are working with the DoH on the legalities of its implementation. Niamh Collins asked why the patient must be not breathing to receive naloxone; she questioned the merits of teaching naloxone administration and not the skill of assessing a respiratory rate. Gerry Bury informed her that the reasoning was to start with those patients in cardiac arrest and develop the CPG when an evidence base starts to accumulate. It was agreed that the CPG should mirror the BLS CPG as far as possible to avoid any confusion.

Resolution: That the Medical Advisory Committee approve CPG 1.3.2 Opioid Overdose, subject to the changes outlined.

Proposed: David Menzies **Seconded:** Niamh Collins
Carried without dissent

4. Practitioner queries re CPGs and medications

4.1 Traumatic Cardiac Arrest

A email query from a practitioner regarding cessation of resuscitation in cases of blunt force traumatic cardiac arrest where PEA was the presenting rhythm was discussed. Niamh Collins cautioned that PEA cases may be resuscitated and rapid transport was required. It was agreed that in such patients in Asystole or who become asystolic may practitioners cease resuscitation.

4.2 IV/IO cannualtion for Paramedics

An email from a practitioner requesting that the skill of IV/IO cannulation be introduced to the Paramedic skills matrix was included in the papers. Brian Power pointed out that such a request had been dealt with previously and that at the time it was agreed that IV and IO access were not the issue but the medication or the fluids infused. Macartan Hughes said that there was little evidence for the benefits of introducing this and the committee agreed to await further developments. A discussion ensued on the benefits of early epinephrine in cardiac arrest. It was agreed to wait until the 2015 ILCOR guidelines emerged to progress further.

4.3 Dilution of drugs in the Pre-Hospital setting

An email from a practitioner seeking guidelines on which fluid to use for the dilution of drugs was included in the meeting papers. The committee agreed that this was a training issue and not in MACs remit. It was agreed however, that water for injection should be the primary diluting agent but that NaCl was safe as a replacement in its absence if not contraindicated.

4.4 Lidocaine 2% as analgesia during the infusion of fluids via IO access

An email from a practitioner requesting the committee consider the introduction of Lidocaine 2% as analgesia during the infusion of fluids via IO was included in the meeting papers. The committee concluded that as IO access is only currently recommended for an unresponsive patient and that this was not merited.

4.5 Abuse and Neglect of Older People in Ireland. 'A National Ambulance Service perspective'

A paper prepared by a practitioner regarding instances of abuse and neglect of older people was included in the meeting papers. Mick Dineen stressed the importance of a pathway being made available for practitioners to report their concern regarding elder abuse in a safe manner. Following a discussion it was agreed that an "older person abuse" guideline similar to the "child first" guideline should be developed. As this is not the remit of the MAC it was agreed to forward the report to Council with recommendations that they would engage with the DoH.

5. Management of Paediatric Diabetic Ketoacidosis

Following a submission from Prof Ronan O'Sullivan to the MAC it was decided to reduce the dose of Sodium Chloride for paediatric ketoacidosis from 20 mL/kg to 10 mL/kg

Resolution: That the Medical Advisory Committee recommend Council to reduce the dose of Sodium Chloride for paediatric ketoacidosis from 20 mL/kg to 10 mL/kg and change the Glycaemic emergency – paediatric CPG accordingly.

Proposed: Stephen Cusack **Seconded:** David Hennelly

6. NHS Pre-Hospital Sepsis Briefing paper

This was included in the meeting papers for the committee's information. It will be considered by the sepsis subgroup.

7. Ticagrelor Medication Formulary Insertion

David Hennelly gave a brief background to the inclusion of Ticagrelor on the medication formulary. Gerry Bury asked that the instances where a GP administers 600mg Clopidogrel for patients presenting with STEMI prior to the arrival of the ambulance be investigated in relation to subsequent administration of Ticagrelor.

Brian Power committed to follow up with the ACS programme and report back to the committee. He will also seek advice on the absolute contraindications of CYP3A4 inhibitors to the administration of Ticagrelor.

8. A.O.B

Declan Lonergan informed the committee that the presentation of buccal Midazolam has changed and it is now available in age specific pre filled syringes rather than weight specific doses. This has implications to the current CPGs. Cathal O'Donnell outlined that the current weight based presentation, is unlicensed by the IMB. The newer age based presentation, although much more expensive is licenced by the IMB. He was advised by the IMB that he would be personally liable if NAS continued to use the unlicensed product. It was agreed that the best solution was to change to age based doses for buccal midazolam.

Resolution: That the Medical Advisory Committee recommend that Council update the seizure – paediatric CPG to incorporate an age based dose of midazolam buccal and remove the weight based dose.

Proposed: David Menzies **Seconded:** Cathal O'Donnell

Signed: _____ Date:_____

Pre-Hospital Emergency Care Council

The Medical Advisory Committee

Meeting Minutes October 31th 2013

PHECC Office, Naas, Co. Kildare

Present	**Apologies**
Niamh Collins (Vice Chair)	Seamus Clarke
Gerry Kerr	Seamus McAllister
Valerie Small	David McManus
Thomas Keane	Derek Rooney
Peter O'Connor	Dave Irwin
Jack Collins	Mick Molloy (Chair)
Macartan Hughes	Stephen Cusack
Cathal O'Donnell	Ken O'Dwyer
David Hennelly	
Shane Knox	
Martin O'Reilly	
David Menzies	
Joseph Mooney	**In Attendance**
Declan Lonergan	Brian Power
Sean Walsh	Deirdre Borland
Rory Previtt	Niamh Cummins
David O'Connor	George Little
Shane Mooney	Jonah Roche
Thomas Keane	

1. Chair's business

Brian Power informed the Committee that Mick Molloy was unable to attend this meeting and Brian had requested Niamh Collins to act as chair for this occasion. The acting Chair welcomed the assembled members to the meeting and acknowledged apologies received. Cathal O'Donnell proposed that the vice chair position be filled and recommended Niamh Collins.

Resolution: The Medical Advisory Committee nominates Niamh Collins as Vice Chair of MAC.

Proposed: Cathal O'Donnell **Seconded:** Valerie Small

Carried without dissent

2. Draft Meeting Report – 27th Sept 2013

Resolution: That the minutes from the Medical Advisory Committee meeting held on the 27th September 2013 be agreed.

Proposed: Dave Menzies **Seconded:** Jack Collins

Carried without dissent

3. C.P.R. University of Limerick

Dr Niamh Cummins from the Centre for Pre-hospital Research at the University of Limerick gave a presentation on the Evidence Based Clinical Practice Guideline Project.

Shane Mooney asked if there are plans to make the make the usernames on the forum identifiable. Niamh Cummins said that this project will be an evolving one and all elements of the project can be revisited. The Vice Chair congratulated the work of CPR in Limerick on this very valuable work.

4. Garda Tactical Emergency Medical Services (TEMS)

Detective Garda Jonah Roche gave a brief presentation on the proposed Garda Tactical Emergency Medical Services (TEMS) seeking the expanding of the scope of practice from their current level sighting various cases where the Garda members have been vulnerable due to the hostile environment in which they work and restrictions of the scope of practice at EMT level to which they are trained. He sought the committees support to expand the TEMS scope of practice under specific conditions and under medical direction. Dr George Little who is supporting the proposal as the Medical Director then answered questions on the concept of TEMS in Ireland.

Gerry Kerr informed the committee of the commonality between the Defence Forces and An Garda Síochána. Valerie Small, Chair of the Education and Standards Committee informed the committee that a Standard is current at committee level to take into account the military's needs.

Cathal O'Donnell expressed a concern of how the skills outlined would be maintained due to low usage. Sean Walsh asked why an EMS integration module, as in other countries was not considered. Dr Little and Garda Roche outlined that discussions with the HSE NAS had indicated that they could not guarantee AP availability at short notice or for long duration operations. A draft outline of the Tactical Emergency Response structure including a medication and skills matrix was tabled for the committee's attention by Brian Power.

Resolution: That the Medical Advisory Committee recommends in principle to Council the development of a Tactical Emergency Care Standard for Ireland.

Proposed: Cathal O'Donnell **Seconded:** David Menizes

Carried without dissent

5. CPGs

5.1 Post Resuscitation Care – Adult

Macartan Hughes asked should a target temperature be specified. David Menzies specified that the target of 32°C to 34°C should be specified. Declan Lonergan questioned the inclusion of transport quietly and smoothly. The assembled members agreed that this should be removed. The Vice Chair raised a concern regarding potential confusion caused by the V Tachy box. Dave Hennelly suggested that the focus should be on the Symptomatic Arrhythmia, where consider amiodarone should be flagged. It was agreed to remove reference to time scale and leave it at consider Amidarone.

Resolution: That the Medical Advisory Committee recommends to Council approval of CPG 5/6.4.12 Post Resuscitation Care – Adult subject to the agreed changes.

Proposed: Dave Hennelly **Seconded:** Macartan Hughes

Carried without dissent

5.2 Asthma - Adult EFR

Brian Power explained that following approval of the Asthma CPG at the last meeting he identified a gap at the ERF level and introduced CPG 3.3.4 Asthma – Adult for consideration. Sean Walsh questioned if this CPG was restrictive by indicting only 2 puffs of Salbutamol. The Vice Chair suggested that at the reassess box, repeat to a maximum of 10 puffs of Salbutamol if no improvement be specified.

Sean Walsh indicated that for paediatric ≤6 years old should get up to 6 puffs of Salbutamol, >6 years old up to ten puffs of Salbutamol.

Resolution: That the Medical Advisory Committee recommends to Council approval of CPG 3.3.4 Asthma – Adult subject to the agreed changes.

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

Carried without dissent

Resolution: That the Medical Advisory Committee recommends to Council approval of the amendment of all Asthma – Paediatric CPGs with the increased dose of Salbutamol as agreed.

Proposed: Sean Walsh **Seconded:** Declan Lonergan

Carried without dissent

5.3 Heat Related Emergency – Adult

Brian Power introduced CPG 4/5/6.6.10 Heat Related Emergency – Adult. Shane Knox questioned the inclusion of "recovery position". It was agreed to remove this reference. The Vice Chair requested the inclusion of glucose check for all. The order of the boxes is to be changed to - SpO_2 monitoring prior to elevate limbs. It was suggested that amendments be made and it be returned to MAC for further deliberation.

5.4 Heat Related Emergency – Paediatric

Sean Walsh questioned the necessity for this CPG. He indicated that he never has experienced a case of this and expressed a concern that this CPG may lead to infections being mistreated a Heat Related Emergencies. It was agreed that this CPG not be progressed.

5.5 Pyrexia – Paediatric

Sean Walsh stressed the importance of giving paracetamol for reducing the temperature and giving a sense of wellbeing to the child. He said that paracetamol will not prevent convulsion it is given to control their basal metabolic rate. The Vice Chair asked that "collapse" be removed. And child with elevated temperature be a starting point. Sean Walsh asked that an arm be included of pyrexia caused by environmental conditions. The Vice Chair questioned the current does of PR paracetamol. Sean Walsh suggested < 1 year should be 90 mg and that paracetamol should not be given to patients less than one month old. He also asked that the SIRS table be removed and included in the septic shock CPG. He asked that the 'give fluids box' be removed and that query severe septic shock should direct to the appropriate CPG. Shane Knox questioned the inclusion of "if the patient is unwell consider ALS", the vice chair suggested moving this to the sepsis CPG. The amendments will be carried out and the CPG will be returned to MAC for further deliberation.

5.6 Sickle Cell Crisis

Brian Power introduced these new CPGs which will go through a Delphi process. Sean Walsh welcomed the development of this - particularly for Paediatric, he gave a brief account of the presentation of the disease. Gerry Kerr asked that if aspirin should be listed as a contraindication sighting a link between g6pd deficiency and sickle cell, it was agreed to verify this with a haematologist.

A discussion ensued regarding the paediatric Sickle Cell Crisis. Sean Walsh asked that dextrose be removed as a choice of fluids, that if encourage oral fluids is unsuccessful saline 10 mL/kg should be administered. He also asked that thought be given to the rate of fluid infusion. The Vice Chair asked that check temperature be included. Shane Mooney suggested that the entonox box be removed.

Both the adult and paediatric Sickle Cell CPGs will be reviewed via a Delphi process.

5.7 Acute Pulmonary Oedema - Adult

Dave Hennelly gave a brief presentation on Non Invasive Positive Pressure Ventilation. Niamh Cummins provided an account of the evidence on NIPPV. The Vice Chair asked the committee to decide if the clinical evidence deemed it worthy for MAC to recommend the inclusion of CPAP on the skills matrix. Gerry Kerr stresses the importance of giving the practitioner every opportunity to treat and alleviate the stresses of the condition rather than simply transporting the patient. Macartan Hughes said that CPAP would be useful in light of the restructuring of the country's Emergencies Departments. Shane Knox asked that the guidelines for use of CPAP in pre-hospital settings in other jurisdictions be examined. On balance the committee agreed that the introduction of Non Invasive Positive ventilation using CPAP or BPAP into Irish EMS was appropriate and recommended its inclusion on the CPGs.

6 Ticagrelor Medication Formulary Insertion

An email from Brian Power to Prof Kieran Daly regarding queries raised at the last MAG meeting in relation the administration of Ticagrelor was included in the meeting papers.

Prof Daly indicated the following in reply to;

Q 1. Is 'Combination with strong CYP3A4 inhibitors such as ketoconazole, clarithromycin, nefazodone, ritonavir and atazanavir' an absolute contraindication in the STEMI context?

No. Ticagrelor can be given and the decision re continuation of Ticagrelor / antibiotic etc can be made after the intervention/PPCI

Q 2. If a GP has administered a loading dose of Clopidogrel prior to the ambulance arrival, should Ticagrelor be administered also?

No. If patient has already been loaded with Plavix then no further anti-platelet other than Aspirin should be given

Rory Prevett raised the issue of Beaumont Hospital listing Bradycardia as an absolute contraindication for the administration of Ticagrelor. It was decided to seek further advice from Prof. Daly amend the medication formulary on his advice.

Resolution: That the medical Advisory Committee recommends to Council the addition of Ticagrelor to the medication formulary, subject to the changes agreed and advise from Prof. Daly on Bradycardia as a contradiction

Proposed: David Hennely Seconded: Shane Knox

7 Practitioner queries re CPGs and medications

7.1 End of Life DNR clarification

Martin O'Reilly submitted a request for clarification regarding "recent and reliable evidence" on the DNR CPG this resulted in a clarification paper being included in the meeting papers. Samples of DNAR forms from various jurisdictions were included in the meeting papers for the committee's attention. The Vice Chair asked that this item be deferred until a future meeting as the Palliative Care Programme have recently published a report which the committee should consider.

7.2 Adrenal Crisis

An email from a member of the public seeking the development of a CPG to cater for the administration of hydrocortisone to patients in adrenal crisis was included in the meeting papers. The Vice Chair questioned if this could be catered for via seeking medical direction. Brian Power suggested that medical direction should only be used when going outside the CPGs or an unusual

presentation is encountered; He queried whether Ireland wants to go the US route of medical direction for everything. He will draft a CPG for future consideration.

7.3 Humidified O2

An email from Martin O'Reilly seeking the addition to the medication formulary of NaCl as a means to humidify oxygen for cases of stridor and respiratory distress post inhalation burn, was included in the meeting papers.

Resolution: That the Medical Advisory Committee recommends to Council the inclusion of NaCl as a means to humidify oxygen for stridor/respiratory distress post inhalation burn to the medication formulary.

Proposed: Macartan Hughes **Seconded:** Declan Lonergan

Carried without dissent

7.4 Non traumatic back pain

An email from a Practitioner seeking the inclusion of Midazolam as a treatment option for severe muscle spasm was included in the meeting papers. The Chair expressed a concern regarding respiratory problems and over use. It was agreed that medical oversight should still be sought.

7.5 Secondary post partum haemorrhage

An email from a practitioner seeking clarification regarding the administration of synotometrine in cases of secondary postpartum haemorrhage was included in the meeting papers. It was agreed that synotometrine was indicated for primary post-partum haemorrhage only and that medical oversight for significant secondary post-partum haemorrhage should be sought.

7.6 Tachycardia CPG

A draft Tachycardia (adult and paediatric) CPG drafted by Damien Gaumont was included in the meeting papers for the committee's attention. It was suggested that a CPG be drafted for future consideration.

7.7 Right sided ECG and GTN

An email from a practitioner regarding the appropriateness of administering GTN to patients with an inferior infarct was included in the meeting papers. The Chair acknowledged that right sided ECG is difficult to interpret even in a hospital environment and allowances should be made for the difficulties that a practitioner would face in the ground. Rory Previtt stressed that there is the apatite and ability for practitioners to learn this assessment skill. Macartan Hughes outlined that NAS

paramedics and Advanced Paramedics are thought right sided ECG acquisition as part of their upskilling. The Vice Chair acknowledged the need for further education and training in the field of Right Sided ECGs.

7.8 Tranexamic acid

An email from Dr. David Janes seeking the consideration of MAC to include the use of tranexamic acid in pre-hospital care for severe trauma patients to reduce deaths from haemorrhage was included in the meeting papers. Brian Power informed the committee that this was included in the draft Medicinal Products 7th Schedule, unfortunately the Chief Pharmacist has left the Department and there is no indication of when she will be replaced. David Hennelly informed the Committee that Dr Damien Ryan of C.P.R. Limerick are currently conducting research on tranexamic acid. There was widespread support for its inclusion on a CPG from the committee. Brian Power outlined that an interim directive could be introduced if the 7th schedule is not updated.

8 Briefing from Sepsis CPG sub group

Brian Power informed the committee that the sub-group have had their inaugural meeting prior to the MAC meeting that morning. They have outlined a work schedule and will continue to report back to the MAC.

9 KPI Update

Brian Power informed the committee that the review process is complete and that we are awaiting the final report from the KPI committee.

10 A.O.B

Brian Power tabled an email from Dr John Dowling seeking the reintroduction of clopidegrol to the ACS CPG to cater for Thrombolysis by Medical Practitioners. He had sought clarification from Prof Daly on this matter. As thrombolysis is no longer being administered by APs, the CPG should reflect this and ring-fence it for medical practitioners only.

Proposal: That the Medical Advisory Committee recommends to council an updated ACS CPG with thrombolysis ring fenced for Medical Practitioners only with clopidegrol as the anti-platelet agent of choice.

Proposer: Macartan Hughes **Seconded:** Shane Knox

The next Medical Advisory Committee meeting will be held on Thursday 28th November at 10:00.

Signed: Niamh Collins Date: 28/11/13

Pre-Hospital Emergency Care Council

The Medical Advisory Committee

Meeting Minutes November 28th 2013

PHECC Office, Naas, Co. Kildare

Present		**Apologies**
Niamh Collins	Seamus McAllister	Valerie Small
Gerry Kerr	David O'Connor	Derek Rooney
Peter O'Connor	Ken O'Dwyer	Shane Mooney
Jack Collins	Joseph Mooney	Neil Reddy
Martin O'Reilly	Declan Lonergan	Sean Walsh
Macartan Hughes	Dave Irwin	Mick Molloy
Cathal O'Donnell	Michael Dineen	Seamus Clarke
David Hennelly		**In Attendance**
Shane Knox		Brian Power
David Menzies		Deirdre Borland

1. Chair's business

The Chair welcomed the assembled members and apologies were noted including those of the Chair Mick Molloy. Seamus McAllister from the NAIS was also welcomed. In the absence of the Chair, the Vice-Chair Niamh Collins chaired the meeting.

2. Draft Meeting Report – 31st October 2013

Resolution: That the minutes from the Medical Advisory Committee meeting held on the 31st October 2013 be agreed.

Proposed: Joseph Mooney Seconded: Peter O'Connor

Carried without dissent

2.1 Matters Arising

2.1.1 Garda tactical Emergency Care Course

Brian Power informed the group that Council had raised some concerns regarding the skills suggested for and the duration of the proposed Garda tactical Emergency Care Course. They have asked that a Tactical Emergency Care Standard be developed and be brought back to Council.

2.1.2 Ticagrelor

Brian Power contacted Prof Daly regarding the concerns raised at the last MAC regarding the administration of Ticagrelor with bradycardia present; he is awaiting a definitive response.

David Hennelly indicated that haven spoken to numerous cardiologists the general opinion does not have any issue with the loading dose of Ticagrelor. Brian will await further instruction from Prof Daly. Brian Power indicated that an interim directive would be required, as Ticagrelor is not currently on the 7th schedule.

2.1.3 Brian Power has identified Dr Corrina McMahon, haematologist, as an appropriate person to get advice on regarding the sickle cell and g6pd CPG and revert back to a future meeting when the issue is clarified.

3. CPGs

3.1 Paediatric age range

Brian Power informed the group that Prof. Alf Nichloson, Clinical Lead for Paediatrics, has advised that the age range for paediatric doses is agreed nationally as "up to the eve of the child's 16th birthday", he asked that the Committee agreed to amend all Paediatric CPGs to reflect this.

Cathal O'Donnell raised a concern that some hospitals use the age limit of 14 years and this should be taken into account. David Menzies suggested that the CPGs generally will not impact on destination hospital and that it is an operational issue.

Resolution: That the Medical Advisory Committee recommends to Council that the new cut off age for paediatric patients of ≤15 years old be adopted and that all paediatric CPGs be updated to reflect this change.

Proposed: Michael Dineen **Seconded:** Peter O'Connor

Carried without dissent

3.2 Heat Related Emergency – Adult

Draft CPG 4/5/6.6.10 Heat Related Emergency – Adult was included in the meeting papers for the Committees attention.

Resolution: That the Medical Advisory Committee recommends to Council approval of 4/5/6.6.10 Heat Related Emergency – Adult.

Proposed: Joseph Mooney Seconded: Macartan Hughes

Carried without dissent

3.3 Pyrexia – Paediatric

Macartan Hughes raised a concern regarding the availability of PR paracetamol. Shane Knox informed the Committee that a 90 mg suppository is now on the market. Draft CPG 4/5/6.7.19 Pyrexia – Paediatric was included in the meeting papers for the Committees attention.

Resolution: That the Medical Advisory Committee recommends to Council approval of CPG 4/5/6.7.19 Pyrexia – Paediatric.

Proposed: Peter O'Connor Seconded: Declan Lonergan

Carried without dissent

3.4 Acute Pulmonary Oedema

Draft CPG 5/6.3.4 Acute Pulmonary Oedema was included in the meeting papers for the Committee's attention. An email from Seamus Clarke with a concern regarding "Systemic Fluid Retention" was tabled for discussion. It was agreed that this was a training issue. The Chair asked that the 12 lead ECG box should lead to the option of ACS CPG if STEMI was identified, this does not impact on the requirement for CPAP. She also asked that the dose of Atropine be stated at 0.6 mg to avoid issues around drawing up. Macartan Hughes informed the group that dose of active ingredient is only 0.5 mg of Atropine. Discussion ensued regarding the dose/active ingredient concentration. It was agreed to amend the dose to 0.6 mg. It was also agreed to commence CPAP of H_20 at 5 cm. The Chair also suggested that "improvement in respiratory rate and SpO_2" be amended to "titrate O_2 to maintain SpO_2 >95%".

It was suggestion that agitation should be removed from the exclusion criteria and replaced with "unable to tolerate CPAP" It was agreed to remove "with no evidence of infection" from the inclusion criteria.

Resolution: That the Medical Advisory Committee recommends to Council approval of CPG 5/6.3.4 Acute Pulmonary Oedema subject to the agreed changes.

Proposed: David Hennelly Seconded: Macartan Hughes

Carried without dissent

3.5 Shock from Blood Loss – Adult

Draft CPG 5/6.6.2 Shock from Blood Loss – Adult was included in the meeting papers for the Committees attention. Brian Power informed the Committee that in the absence of a Chief Pharmacist to ratify the amendments to the Medicinal Products 7th schedule, Tranexamic acid would take considerable time to be included on the schedule. With the strength of evidence supporting Tranexamic acid following multisystem trauma it could not be justified to wait any longer. Tranexamic acid can be made available by way of interim directive. David Hennelly asked that consider pelvic binder be included for polytrauma patient and consider maintain normothermia, this was agreed. He also asked that a pre-alert hospital if appropriate be included. David Menzies asked that Tranexamic acid be administered in 100 mL of saline over 10 mins rather than 1 mg slow IV. Shane Knox said that JRCALC list head injury as a contraindication for Tranexamic acid. It was agreed that a caution box be included in the medication formulary for isolated head injury. It was suggested that uncontrolled haemorrhage be changed to suspected significant internal/external haemorrhage. Brian Power pointed out the inclusion of the Tranexamic Acid for use by Advanced Paramedics requires a signed interim directive in place. Macartan Hughes requested trauma be included in the title of the CPG, and to develop a 2nd CPG for non-traumatic shock. It was agreed that two CPGs were appropriate. It will be retiled to Shock from Blood Loss (Trauma) Blood Loss – Adult, and develop a 2nd CPG in parallel called Shock from Blood Loss (non – trauma) – Adult.

Resolution: That the Medical Advisory Committee recommends to Council approval of CPG 5/6.6.2 Shock from Blood Loss (Trauma) Blood Loss – Adult, subject to the agreed changes.

Proposed: Declan Lonergan Seconded: Michael Dineen

Carried without dissent

Resolution: That the Medical Advisory Committee recommends to Council approval of CPG Shock from Blood Loss (non – trauma) – Adult, subject to the agreed changes.

Proposed: Macartan Hughes Seconded: Peter O'Connor

Carried without dissent

3.6 Shock from Blood Loss – Paediatric (≤ 13 years)

Draft CPG 5/6.7.13 Shock from Blood Loss – Paediatric (≤ 13 years) was included in the meeting papers for the Committees attention. It was agreed that the changes agreed for the Adult CPG be reflected here. David Menzies questioned the administration on Tranexamic acid for children aged

under 12 as the Royal College of Paediatrics and Child Health only suggests it for over 12 years. Brian Power referenced JRCLAC who provide age doses for children from neonate upwards. It was agreed to refer this to Sean Walsh for his expert opinion. David Hennelly informed the Committee that IO administration is not approved, Brian Power indicated that evidence suggests it is possible to administer IV/IO. The Chair asked that the signs of poor profusion be presented in an ABC format.

Resolution: That the Medical Advisory Committee recommend to council two CPGs; Blood Loss (trauma) Blood Loss – Paediatric and Shock from Blood Loss (non – trauma) – Paediatric, with the changes outlined in the Adult CPG. Subject to the agreement of Sean Walsh OLHC.

Proposed: Peter O'Connor Seconded: David Hennelly

Carried without dissent

3.7 CPG Delphi

Brian Power introduced the feedback from the Delphi process. He stressed the importance of all MAC members taking part with the Delphi process.

3.7.1 Sickle Cell Crisis – Paediatric

Delphi feedback from Draft CPG Sickle Cell Crisis – Paediatric was discussed. Cathal O'Donnell asked that importance of rehydration be of greater focus. Dave Irwin indicated the he felt the CPG was adequate. David Hennelly questioned that a time limit may be required for Entonox administration. Brian Power suggested that this caution could be captured in the Medication Formulary. Macartan Hughes suggested the entry into the CPG be changed to "sickle cell crisis", that 100% O_2 be flagged and to move down the SpO_2 monitor box. It was agreed that "consider patients care plan" will be included.

Resolution: That the Medical Advisory Committee recommends to Council approval of Draft CPG Sickle Cell Crisis – Paediatric subject to the agreed changes.

Proposed: Ken O'Dwyer Seconded: Joseph Mooney

Carried without dissent

3.7.2 Sickle Cell Crisis – Adult

Delphi feedback from Draft CPG Sickle Cell Crisis – Adult was discussed. The chair suggested that the fluids should be increased to 1 L and that the changes from the paediatric CPG be incorporated.

Resolution: That the Medical Advisory Committee recommends to Council approval of Draft CPG Sickle Cell Crisis – Adult subject to the agreed changes.

Proposed: Dave Irwin Seconded: David O'Connor

Carried without dissent

3.7.3 Tachycardia – Adult

Delphi feedback from Draft CPG Tachycardia – Adult was discussed. David Menzies suggested that given the level of disagreement this CPG may warrant further attention. The Chair asked the practitioners what is the frequency of Tachycardia. David Hennelly said that there was a significant number of A Fib. He further said that the SVT or VT patients could benefit from the Tachycardia CPG. David Menzies suggested a split into stable and unstable tachycardia. Macartan Hughes asked it the frequency of occurrence of these cases merits the creation of a CPG. A discussion ensued in regard to the feedback submitted. Brian Power suggested concentration on wide complex, unstable patients with VT should be wise. It was agreed that Brian Power will look at the IHF Algorithm and develop the CPG with the interventions such as Amiodarone for VT patients, Synchronised Cardio version for unresponsive VT patient and Vagal/Valsalva manoeuvres for patients with PSVT

3.7.4 Adrenal Crisis – Adult

Delphi feedback from Draft CPG Adrenal Crisis – Adult was discussed. Feedback received was discussed. The following changes were agrees:

- title box be changed to Adrenal insufficiency – Adult
- entry box to state Diagnosed with Addison's disease or adrenal insufficiency
- IM administration of hydrocortisone only if IV access unavailable
- Inclusion of blood glucose check
- Hydrocortisone to be administered in 100 mL NaCl

Resolution: That the Medical Advisory Committee recommends to Council approval of Draft CPG Adrenal Crisis – Adult subject to the agreed changes

Proposed: David Menzies Seconded: Cathal O'Donnell

Carried without dissent

3.7.5 Adrenal Crisis – Paediatric

Delphi feedback from Draft CPG Adrenal Crisis – Paediatric was discussed. It was agreed to change the paediatric CPG as per the agreed adult changes.

Resolution: That the Medical Advisory Committee recommends to Council approval of Draft CPG Adrenal Crisis – Paediatric subject to the agreed changes

Proposed: Dave Irwin Seconded: David Menzies

Carried without dissent

3.8 New CPGs for review

3.9.1 Fainting

A first draft of Responder Level CPG Fainting was introduced by Brian Power. He indicated that this is a new CPG and will have to go through a Delphi process. Brian outlined that with the introduction of the new Emergency Care Standard a fainting CPG is required. He stated that first aid books appeared to neglect the potential seriousness of fainting and never suggested medical review. He welcomed the Committees feedback. Cathal O'Donnell asked that the box advising the person to attend a medical practitioner be moved out of the algorithm to an advice box at the side.

4. Practitioner queries re CPGs and medications

4.1 Hexafluorine and Diphoterine

Brian Power introduced information sheets on Hexafluorine and Diphoterine used for the topical treatment of chemical burns. He asked for the Committees consideration to add these agents to the Burns CPG. A discussion arose regarding the frequency of chemical burns and the shelf life of the product. It was agreed, while noting these agents are beneficial, they very low frequency of occurrence and that organisation who use chemicals shock these or similar products as part of their safety requirements, it would not be necessary to stock these items as part of a pre-hospital emergency care response. Brian Power indicated that as these agents were not medicinal products they did not require to be added to the 7th schedule. Martin O'Reilly advised that because of the clarification from MAC regarding Hexafluorine and Diphoterinedue the fact that they are not medications and as such not bound by medications legislation, DFB will be in a position to decide whether to carry these solutions on that basis.

4.1 GTN and EFRs

An email from David Menzies seeking clarification on the assisted administration of GNT by EFRs was included in the meeting papers. The current situation is that EFRs may assist with only one dose of GTN. The question is can an EFR assist in the administration of more than one dose of GTN. Peter O'Connor suggested leaving as is and that the EFR should seek doctor's direction, of allow the patient take their own further doses. This was agreed by those present.

5 Ambulatory care report (ACR) information standard.

A revised Information Standard for the Ambulatory Care Report was included in the meeting papers for the Committees review and sought the committee's approval of the Standard.

Resolution: That the Medical Advisory Committee recommends to Council approval of the revised Ambulatory Care Report Information Standard

Proposed: Joe Mooney Seconded: Jack Collins

Carried without dissent

6 Briefing from Respiratory emergencies CPG sub group

This item will be discussed at the next meeting

7 Briefing from Sepsis CPG sub group

This item will be discussed at the next meeting

8 KPI Update

This item will be discussed at the next meeting.

9 A.O.B

9.1 A report from the OHCAR group giving the highlights of the ERC Resus symposium in Krakow was included the meeting papers. The committee will seek further information from Siobhan Masterson regarding the data on resuscitation post trauma figures.

9.2 Dave Irwin raised a query from an EMT working in for a voluntary organisation regarding the medication and skills matrix. He asked if the skills indicated at Paramedic level could be taught to EMTs. Brian Power informed him that the skills matrix specifies the minimum skills required at each level and there is nothing prohibiting a CPG approved organisation in offering skills training above the minimum requirements to its members. Brian further advised that should a CPG approved organisation increase the scope of practice for its members then they are responsible to ensure competence is maintained by the responders and practitioners. In the event of a claim of negligence PHECC will stand over the official scope of practice but the CPG approved organisation will have to justify why it was necessary to increase the scope of practice beyond PHECC's standard. Brian did caution that medications listed on the matrix are authorised by way of statutory instrument (7th Schedule) and are strictly authorised for the indicated clinical level.

Pre-Hospital
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The next meeting will be held on 30th of January 2014

Signed: _____ Date: 30/1/14