

ACE

A newsletter for Provincial Assessors of

Confidential

Enquiries into Maternal Deaths

Editors

Fawcus S.

Members of the NCCEMD

May 2014

Dear Assessors,

The NCCEMD thought that it should revive the ACE newsletter (Newsletter for the **A**ssessors of **C**onfidential **E**nquiries into Maternal Deaths). The NCCEMD, together with the National Department of Health will therefore, produce two newsletters during the year; one in May/June and other in November/December.

The intention is to keep you up to date on the activities of the NCCEMD in order to improve maternal death reporting and assessment. We have also had very positive reports about the last newsletter. It is hoped that assessors themselves contribute directly to the newsletter, by raising matters which impact on assessment and highlighting provincial issues, so that all South African assessors can learn and be on the “same page”. This newsletter in fact, does deal with some questions raised by individual assessors about issues around post mortems/autopsies.

It is hoped you will find this newsletter of interest and that there be some interaction via letters to the editor about anything on maternal death assessments and how we can further reduce maternal mortality in South Africa. A *Letter to the Editor*, or *Chatterbox* section should be interesting.

Enjoy

Professor J. Moodley

Chairperson NCCEMD

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2. Medico legal PMs.

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* Addressing queries about maternal death reporting

**ASSESSMENTS: TIMELINES, FORMS AND MAMMAs**

**2013 maternal deaths** should have been assessed and entered in to MAMMAs by the end of April 2014. Remember that notifications and assessments for 2013 still use the old 2008 MDNF and assessors forms. If the deadlines are adhered to and the data analysed in May and June then the 2011-2013 report should be in print and ready to disseminate at the national assessors meeting in November.

**2014 maternal deaths** should be notified using the new 2014MDNF and assessed using the 2014 assessors form. Please can you make sure that the MDNF forms are disseminated to all facilities and being used and that all 2014 assessments are done using the 2014 assessment forms.

The MAMMAs programme has been modified to accommodate all the changes in the Assessors forms and must be used to enter all 2014 data on maternal deaths

**PPH AT CAESAREAN SECTION: URGENT ATTENTION NEEDED**

This serious and increasing problem has received priority attention by the NCCEMD and was the subject of a special workshop at the 2014 conference on Priorities in Perinatal care held in Cape Town.

The following items, which should be available from provincial MCWH coordinators, can assist in training doctors and nurses and ensuring appropriate functioning of the maternity health system:

* Posters on management of PPH at and after Caesarean Section (CS)
* Handbook (monograph) on management of PPH in South Africa
* The CS Monograph
* DVD with lecture on management of PPH.

In addition we present in this newsletter:

* An action plan to reduce haemorrhage deaths at CS which indicates what actions are required from ALL the role players if this problem is to be reduced.
* A very useful algorithm on the use of uterotonic drugs at CS. This has been a source of controversy in SA leading to disagreements between anaesthetic and obstetric doctors. This algorithm, devised by Dr Zane Farina, Senior anaesthetist in KZN, is consistent with the NCCEMD algorithms and posters and represents a CONSENSUS statement between anaesthetists and obstetricians.

**Actions requested to reduce maternal deaths due to bleeding at or after caesarean sections**

The increase in bleeding at or after caesarean sections is taking place in the context of a high HIV prevalence, higher rates of caesarean section, anaemia and women with previous caesarean sections; all these factors contribute to the increasing incidence of haemorrhage. Prevention of bleeding must entail preventing anaemia, reducing the caesarean section rate and preventing and treating HIV infections. This must be coupled with improved training and supervision of junior and sessional doctors, more strict indications for caesarean section and an overall better care of the woman during labour. The increase in haemorrhage at or after caesarean section can be regarded as a marker of the quality of care during labour. Doctors and professional nurses and advanced midwives must behave professionally and if they do not must be held accountable by their clinical managers. There are FIVE main ACTION messages:

* **Early recognition** *(covers monitoring, problem recognition and assessment)*
* **Immediate** **resuscitation** *(covers algorithms for resuscitation, availability fluids, giving sets and blood)*
* **Immediate** **medical and surgical skills** to stop the bleeding *(covers skills training, ESMOE, algorithms, team work, supplies)*
* **Emergency** **transport** *(on site inter-facility)*
* **Leadership** *(covers responsibility, accountability, referral systems, communication)*

To facilitate the implementation of these action messages, the following actions are requested from the stakeholders at various levels of management and care. The stakeholders include the health care policy makers, managers, providers, professional bodies and societies, educational institutions and the community. In other words the **whole health care community** involved in the care of pregnant women and their babies, not matter how small the involvement. The process will need to be facilitated by the Maternal Child and Women’s Health cluster, the chairperson of the NCCEMD, and the new district clinical specialist and ward primary care teams.

### Actions requested from the Policy makers (Minister of Health and Provincial MECs)

* Promote pregnant women giving birth in safe maternity units
* Ensure the health care managers provide safe maternity services
* Actively promote the Free State model of inter-facility transport
* Promote vaginal delivery as the safest option for normal pregnancies

### Actions requested from the provincial MCWH managers and the District Managers

* Ensure that district hospitals identified by the Province as CS sites, as well as all regional and tertiary hospitals, have 24 hours functioning theatres
* Ensure there is blood for blood transfusion always available at the hospital
* Ensure there is sufficient trained staff for the anaesthesia, surgery and monitoring of the patient in the recovery area
* Ensure adequately staffed labour wards.

### Actions requested from district clinical specialist teams (DCST)

* Determine whether the district has the appropriate facilities and equipment for providing the seven signal functions of basic emergency obstetric care for community health centres and the nine signal functions for comprehensive emergency obstetric care at district hospitals and higher and report the findings to the district manager so corrective action can be taken.
* Determine whether the health care providers (HCP) are skilled in managing labour, use of the partogram and postpartum haemorrhage and inform the district manager of the findings and if not skilled, train the HCP to be competent.
* Determine the emergency inter-facility transport procedures and audit the time for transfers. Inform the district manager and Emergency Medical Services (EMS) manager of the findings
* Ensure doctors performing caesarean sections are competent to do so. If they are not the district clinical specialists (DCS) should ensure the doctor is trained.
* Ensure that all doctors trained to perform caesarean section (CS) are trained in additional medical and surgical procedures e.g. oxytocic agents, compression sutures, stepwise uterine artery ligation, uterine tourniquet and if available balloon tamponade to treat excessive bleeding at CS.
* Ensure that there are medical staff at all regional and large district hospitals who can perform caesarean hysterectomy
* Ensure doctors performing anaesthesia for caesarean sections are competent to do so. If they are not the DCS should ensure the doctor is trained
* Ensure that doctors providing anaesthetics are trained in appropriate use of oxytocic agents at CS
* Ensure the criteria for referral are established and adhered to.
* Disseminate PPH posters in labour wards, theatre and Recovery, postnatal areas.
* Teach relevant clinical staff using PPH video tool
* Ensure an audit is kept of all caesarean sections and women with postpartum haemorrhage

### Actions requested from ward primary care team

* Educate pregnant women about obstetric haemorrhage and transport plans
* Educate pregnant women about the need to take iron, folate and calcium supplementation to prevent anaemia and pre-eclampsia

### Actions requested from CEOs of hospitals

* Ensure that the nine signal functions for comprehensive emergency obstetric care are available in the hospital
* Ensure that all levels of hospital managed (district, regional and tertiary) have 24 hours functioning theatres and that urgent CS can be done timeously
* Ensure there is blood for blood transfusion always available at hospitals which do CS and replaced after use.
* Ensure the maternity unit always has sufficient stocks of equipment to put up IV lines, appropriate resuscitation fluid and oxytocics
* Ensure there is sufficient trained staff for the anaesthesia, surgery and recovery area
* Ensure adequately staffed labour wards and postnatal wards
* Ensure the early warning monitoring charts are available for monitoring pregnant women after caesarean section or with any obstetric complication
* Ensure emergency transport is available on-site at district hospitals for inter-facility transfers
* Ensure EOST exercises are conducted at least monthly. Scenarios with obstetric haemorrhage must be priority exercises.
* Ensure all clinical staff involved in the care of pregnant women are trained in ESMOE.
* All CEO”s must ensure that any new doctor is evaluated re competency to perform CS before being allowed to operate independently
* Ensure doctors conduct themselves in a professional way

### Actions requested from clinical managers and heads of Obstetrics and Gynaecology departments

* Ensure training in and implementation of the PPH and CS protocols.
* Ensure training of all doctors in safe CS techniques; and additional measures to control excessive bleeding at C/S.
* Audit all cases of severe haemorrhage and display trends by graphs or charts in labour ward and theatres.
* Use Foley catheter for induction of labour in all patients at high risk for uterine rupture (e.g. highly parous) and in cases in which prostaglandin induction of labour has failed.
* Audit all indications for caesarean section by using the Robson method.
* Syntometrine or ergometrine should be used as the second line treatment for uterine atony in preference to misoprostol, unless contraindicated.
* Ensure all women with a blood loss in excess of 1000mls need to be immediately assessed by a doctor.
* Ensure Emergency Obstetric Simulation Training (EOST) exercises are conducted at least monthly.
* Ensure women post CS are monitored in an appropriate site.
* Ensure all women who have had a postpartum haemorrhage are monitored in a high observation area for at least 12 hours after the event.
* Ensure the doctors conduct themselves in a professional way.

### Actions requested from operational managers of maternity units

* Ensure the partogram is used and completed fully and interpreted correctly
* Ensure the Surgical checklists are completed by the operating team before a CS
* Ensure Early Warning Monitoring charts are used for all pregnant women with complications
* Ensure women post CS once they have reached the post natal ward are monitored in the following manner:
  + - Half hourly for 2 hours
    - Hourly for a further 4 hours
    - 2 hourly for a further 6 hours
    - 4 hourly until discharge
  + Observations to be recorded
    - Pulse rate
    - Blood pressure
    - Vaginal bleeding (pad checks)
    - Urine output and temperature 4 hourly
    - Only decrease frequency of observations if the previous observation was normal
* Ensure the woman is nursed in an area where there are health care professionals that can do the observations regularly and are not put in a ward where observations are difficult to perform
* Ensure a companion to the woman is allowed and encouraged in labour
* Disseminate PPH posters in labour wards, theatre and recovery, postnatal areas.

### Actions requested from all doctors involved in care of pregnant women

* Ensure you are trained in Essential Steps in Managing Obstetric Emergencies (ESMOE) and participate in EOST exercises in particular haemorrhage drills
* Ensure you are able to complete and interpret a partogram
* Ensure you are able to interpret an cardiotocograph (CTG)
* Ensure you are able to perform a CS safely according to the technique described in the Caesarean Section monograph
* Ensure that you are trained in additional medical and surgical procedures e.g. oxytocic agents, compression sutures, balloon tamponade and uterine tourniquet to treat excessive bleeding at CS.
* Ensure you are able to perform an assisted delivery safely
* Ensure you conduct yourself in a professional way

### Actions requested from the midwives and all nurses involved in the care of pregnant women

* Ensure are nursing staff are familiar with and use the early warning monitoring charts
* Ensure all nurses working in maternity units are familiar with and can complete and interpret a partogram
* Ensure the nursing staff are trained in ESMOE and participate in EOST exercises; in particular haemorrhage drills
* Ensure all advanced midwives can conduct a vacuum delivery
* Ensure that all nurses join in the regular EOST exercises (“Fire Drills”)

### Actions requested from Nursing Colleges and Nursing Departments in universities

* Ensure all nurses are trained in ESMOE
* Ensure all nurses are trained in the use of the Early Warning Monitoring charts
* Ensure that all advanced midwives are trained in the 7 signal functions of BemOC.

### Actions requested from Medical Schools

* Ensure all medical students are trained in ESMOE
* Ensure all medical students are trained in the use of the Early Warning Monitoring charts
* Ask all heads of Department to hold a symposium in their department to use the educational materials and to discuss the problem within their departments
* Ensure all students are taught what is expected by the professional conduct of a doctor
* Ensure that all specialists ( Obstetricians and Family Physicians) are competent in vacuum/ventouse and forceps deliveries

### Actions requested from HPCSA

* Include all the ESMOE modules in the intern logbook and that participation in these modules is essential and must be signed off prior to registration as a community service doctor
* Ensure all interns are trained in performing caesarean section. Where this is not possible at sites where interns are trained, then the site must ensure the intern is appropriately trained elsewhere. A specialist must personally supervise an intern doing a CS before the intern can be registered for community service.
* Strengthen the monitoring and signing of the Log books by ensuring these are carefully checked on a quarterly basis and appropriate training be taken where necessary
* Ensure that doctors who qualify overseas undergo examinations on emergency care

### Actions requested from the Community

* Insist on the right to have an accompanying person present with the woman in labour
* Promote the policy of starting antenatal card before 14 weeks and to take the essential pregnancy supplements (iron, folate and calcium)
* Understand the need to arrange transport to the facility where you intend giving birth and not to rely on an ambulance.

### Actions by Professional Bodies/ Organizations and the Colleges of medicine (SASOG and SARCOG)

* Ensure that messages about ESMOE training and other measures listed above are brought to the attention of all members at every conference and educational meeting
* Promote audit tools for monitoring severe postpartum haemorrhage in private hospitals
* Actively promote all publications on “ steps to take to reduce severe PPH”

Ensure that all registrars in training are aware of the management PPH by regular questions in diploma and fellowship OSCEs and OSPEs.

**Use of Utero-tonic drugs at Caesarean Section**

**POSTMORTEMS FOR MATERNAL DEATHS**

Ideally all maternal deaths should have post-mortems (PMs) to establish the precise cause of death and to assist family members understand the cause of such a tragedy.

However, in South Africa, there are limited pathology services making this impossible. There, we need to prioritise which patients should get PMs.

**MANDATORY PMs**

**NB. For all ‘unnatural’ maternal deaths a PM is mandatory by law and a forensic pathologist must be contacted.**

*Unnatural deaths* include:

* Deaths from sudden unexplained and unexpected collapse
* Deaths during and immediately after a procedure
* Any death due to physical or chemical influence, direct or indirect, or related complications;
* Any death, including those deaths which would normally be considered to be a death due to natural causes, which in the opinion of the medical practitioner, has been the result of an act of commission or omission which may be criminal in nature;

For such deaths, a medico-legal Post Mortem examination is mandatory irrespective of the family’s wishes or religion and the family are not required to sign consent.

The pathologist (FPS) may decide after review of the clinical summary to proceed with selected autopsies, and not to perform others where the cause is known from the surgical and radiographic findings, and an autopsy is not necessary. This decision needs to be made by the FP S who must always be contacted (see contact details below).

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| --- | --- | --- | --- |
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If a forensic PM is performed and the findings required for an inquest or police investigation, the FPS cannot release the full written report to the treating doctors. However a summary with cause of death may be released to the treating doctors to enable full completion of the MDNF and assessors forms; or the FPS pathologist will complete the notification form.

**MEDICAL INTEREST PMs**

These are done for maternal deaths which are not ‘unnatural’ to establish the cause of death. A family member is required to give consent before such a PM can be performed. The PM will be performed by an anatomical pathologist and not a forensic pathologist. Due to limited anatomical pathology services, it is not possible to perform such PMs on all eligible maternal deaths. It is best to prioritise cases where there is definite uncertainty as to the cause of death. Such PMs are usually unnecessary where clinical factors have been very helpful in ascertaining the cause of death. For example a women with X ray appearance of military TB and a CD4 count of <50, not on HAART has a cause of death which can be clinically determined. Another example may be a woman with eclampsia who had a respiratory arrest and a CT scan had shown intra-cerebral haemorrhage

**MAINTAINING CONFIDENTIALITY AND PRIVACY**

The NCCEMD process is confidential and all copies of case notes, completed MDNFs, and completed Assessor’s forms are destroyed after publication of the reports. These forms and the data collected by the NCCEMD are the property of the NCCEMD process only, and cannot be used for medico-legal or disciplinary processes which, when they occur, are completely separate and parallel processes. This has been ratified by relevant judicial bodies.

In practice this means that:

**At facility level:**

* No copy of the completed MDNF must be kept in the patient’s folder.
* Completed MDNFs must not be given for use in a medico legal or inquiry or to inform a disciplinary process. (Such processes are all legitimate and ensure accountability by the facility but are separate and distinct process).
* Minutes of facility based mortality meetings need to be kept which reflect the discussions at the meeting and these are kept in the facility as a record of the discussion, lessons learnt, and actions recommended to prevent further mortalities
* Facility data on numbers and causes of maternal deaths can be forwarded to provincial structures as part of general department of health mortality reporting processes.

**At provincial level:**

* The MCWH coordinator must try to anonymise the photocopy of the patient records so as to remove patient and staff identifiers before they are sent for provincial assessment.
* No copies of patient folders, MDNFs or Assessors forms should be kept in the provincial office.
* The MCWH coordinator can separately provide the provincial structures with data on numbers and cause of maternal deaths but not with any of the NCCEMD forms or data on avoidable factors.
* Provincial assessors must keep confidential the details of the maternal deaths they have assessed. They must not agree to be an expert witness in any case that they have assessed for the NCCEMD. (This would be a conflict of interest).
* If a provincial assessor identifies an alarming incident or practice that occurred in a facility from a case that they have assessed which they deem to require urgent remedial action (e.g. the facility is inducing labour with a dose of misoprostol that is higher than stipulated by standard protocols), they must not contact the facility directly themselves. However, they should inform the MCWH coordinator to urgently address this problem at the facility via the DCST team or a provincial obstetrician overseeing that facility.

**At national level:**

* All original hard copy data (MDNFs, Assessor’s forms and photocopies of patient folders are destroyed once the reports are printed.
* There is strict security for the national and provincial MAMMAs data entry system
* NCCEMD members must not be involved as expert witnesses in cases which involve maternal deaths
* Permission must be sort from the chairperson of the NCCEMD to present any data before the report is printed, by which time it is in the public domain.

**ADDRESSING QUERIES ABOUT MATERNAL DEATH NOTIFICATION**

**Frequently asked questions:**

**Q: *Should all deaths in pregnancy be notified, including coincidental deaths?***

A: All deaths should be notified if they occur during pregnancy or during the first 42 days after delivery (this includes 42 days after miscarriage, termination of pregnancy or surgery for ectopic pregnancy). Even if you think the death had no relation to the pregnancy, it must be notified. The death will be assessed by provincially-appointed expert assessors who will make a decision about whether it is a maternal death or a coincidental death in pregnancy. If the assessment is that it is a coincidental death, then it will be recorded as such in the Saving Mothers report, and will not be included in calculation of maternal mortality ratio.

**Q: *Who should fill in the maternal death notification form (MDNF)?***

A: Any clinical person involved in the management of the case can fill in the demographic and case details in the form, but before the filling of the form is finalized, there should be a review process conducted at the facility to clarify the facts of the case and to identify problem areas and to make an action plan in response to the death to try to ensure that recurrence is prevented. This should be reflected in the section on the form which says “what has your institution learnt from the case and what actions do you envisage from this learning process.” The most senior person involved in or responsible for the care of the patient should verify the contents of the form and sign it. This might be the operational manager at a midwife-obstetric unit, the clinical or medical manager at a district hospital or the Head of the Maternity department or an obstetric specialist at a regional hospital.

**Q: *Who is responsible for notifying the deaths which occur in the private hospitals?***

A: There is no difference compared to State hospitals. The same process of a review meeting involving all people responsible for the care of the woman should be undertaken and the MDNF form filled as discussed above. As managers and clinical staff at private hospitals are sometimes unaware of their responsibilities with regard to maternal death notification, it may be valuable for the Provincial facilitator for maternal deaths or the District clinical specialist team to meet with the local private hospital management to clarify the process.

**Q: *Who is responsible for notifying the death if the case is referred to a hospital from another facility and dies shortly after arrival at the hospital?***

A: The facility where the woman died has a responsibility to notify the death. Ultimately it is the responsibility of the CEO of the hospital to ensure that the notification is done. However, in order to fill in the MDNF, the relevant case details will need to be obtained from all the facilities where the woman was managed during the pregnancy, and these details will need to be included in the notification (this may all be recorded in the maternity case record). There will therefore need to be communication with the referring facility to discuss the death, and in some cases to request more information. If the key events in the management of the woman occurred at the referring facility before referral, and the woman dies soon after arrival at the receiving facility, the referring facility may volunteer to fill the MDNF, as they may have better knowledge of the details of the case. This would need negotiation between the two facilities and a clear agreement about which facility will fill in the form. If there is no agreement that the referring facility will fill the form, then the facility where the death occurred still has responsibility for notification.

**Q: *Who is responsible for notifying the death if the death occurs in transit (in the ambulance), when the woman is been referred from one facility to another?***

A: The referring facility has the responsibility to notify the death. The death would normally be counted in the maternal death statistics of the referring facility.

**Q: *Who is responsible for notifying the death if the death occurs at home, or in transit from home, and the woman is dead on arrival at the facility.***

A: It is recommended that the facility to which the body has been brought assesses the available information about the woman’s pregnancy (e.g. a relative’s report or maternity case record if available) and discusses with the local forensic pathologist regarding the need for post-mortem. If the forensic pathologist requests the body to be sent for post-mortem, the notification should be done by the forensic pathologist. In this case, the facility could verbally inform the Provincial MCWH Department and the local DCST that the death has occurred, with some identifying details (name, date of death etc.) so that they can follow-up with the forensic pathologist regarding the notification.

If the forensic pathologist decides that there is no need for post-mortem (e.g. known woman with maternity case record with documented terminal illness), then the facility can notify the death, but the death would not be included in the facility’s maternal mortality statistics.

**Q: *If a doctor or nurse at a health facility hears about a maternal death which occurred in the community (e.g. a grandmother brings her new grandchild to the 6-week post-natal visit and reports that the child’s mother has died at home), what steps should be taken with regard to notification of the maternal death?***

A: The Provincial MCWH department and local DCST should be contacted to inform them of such deaths. It could then be noted and included in the Provincial and district maternal mortality databases as a community death. In most cases it will be difficult to access any further information regarding the details of the case, but if details can be accessed (e.g. if the maternity case record can be tracked down), then a formal notification process with MDNF should be done by the DCST.