THE PPIP MORTALITY REVIEW PROCESS
Making perinatal mortality review meaningful

It is the structured clinical audit of all perinatal deaths (stillbirths, neonatal deaths, maternal deaths) that enables a thorough assessment of the quality of care that mothers and babies receive in the health system.

For a clinical audit / mortality review to be successfully implemented there are two vital requirements:
1) dedicated individuals willing to spend time and effort to make the process happen
2) a carefully structured system where roles and responsibilities are well-defined

Thus the system for a mortality review process in a maternity unit consists of two main activities:
A. data collection
B. the actual mortality review process

A. Data collection
To conduct a mortality review, two data sources are needed:
1) the labour ward admissions, discharges and deaths register
2) the individual clinical records of the mothers and their stillbirths and neonatal deaths

Keep a separate register of stillbirths and neonatal deaths so that their medical records can be traced. Deliveries and deaths by birth weight are captured on Total Births data sheets. Detailed information on each death is captured on the Perinatal Death data sheet. (see also the “PPIP” guideline)

To organise and keep track of the data it is helpful to compile a lever arch file, clearly labelled PPIP. The file can be divided into two sections, one for perinatal data and the other for maternal data. It is helpful to order the contents in each section as follows:
1) Laminated copies of code lists (Cause of death and Avoidable factors)
2) Monthly dividers for each month followed by a Total Births data sheet for that month as well as a Perinatal Death data sheet completed for every stillbirth and neonatal death that occurred during that month
3) Spare data capture forms

B. The mortality review process
Efficiency and effectiveness depends on your following the four components of the mortality review process:

<table>
<thead>
<tr>
<th>Component</th>
<th>When</th>
<th>Who</th>
<th>Purpose</th>
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<tbody>
<tr>
<td>1. 24 hour review</td>
<td>Each stillbirth/neonatal death should be reviewed and summarised within 24 hours</td>
<td>The attending doctor or nurse at the time of the death</td>
<td>Ensure all necessary information is captured at a time when information is available</td>
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<td>2. Preparatory meeting</td>
<td>Before the Perinatal Mortality Review Meeting</td>
<td>The doctor and nurse in charge of the labour ward and neonatal unit</td>
<td>A detailed analysis of all deaths, with case selection for presentation at the Mortality Review Meeting</td>
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<td>3. Mortality review / PPIP meeting (see below)</td>
<td>Weekly to monthly depending on load</td>
<td>The whole perinatal care team (doctors and nurses) as well as antenatal clinic staff</td>
<td>Presentation of statistics, case discussions and task reviews</td>
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<tr>
<td>4. Epidemiology &amp; Analysis</td>
<td>6 monthly/annually</td>
<td>Managers and clinical personnel</td>
<td>Broader problem identification with trend assessment, and with proposed solutions/recommendations</td>
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1. The 24 hour review
Every single stillbirth/neonatal/maternal death occurring in your hospital should be summarised using the PPIP Perinatal or Maternal Death data sheet at the time of death. The person best placed to do this is either the birth attendant (doctor or midwife) for stillbirths, or the on duty doctor (or by way of handover the daytime nursery team) for neonatal and maternal deaths. The death summary should be regarded as no more burdensome, and no less important, than the discharge summary for other babies and mothers leaving the unit.

It is still best to have a single person in the labour ward and nursery making sure that this process happens. This can be a doctor or a nurse.
2. The preparatory meeting

This meeting is crucial. All data capture sheets must be completely completed, to the stage of readiness for entry onto the computer. This means that all fields must be filled in, and codes must be entered where required. This makes data entry onto the computer efficient and accurate, and allows for any category of employee to enter data.

Careful selection of cases for presentation will enhance learning opportunities and facilitate problem identification and task definition and allocation.

The preparatory meeting is the responsibility of the most senior doctor and most senior nurse in the labour ward and nursery.

3. The mortality review meeting

Mortality meetings must be well organised and managed by the nurse and doctor responsible for perinatal care.

1) Meetings should be held weekly to monthly depending on the number of deaths.
2) A suitable time and venue is needed.
3) All staff involved with perinatal care should be invited (nurses, doctors and administrators). Staff must understand that mortality meetings are very important. It is especially helpful to invite staff from referring clinics.
4) Case presentations should be concise and professional. Discussion is encouraged if the presenter does not provide the cause of death and avoidable factors. This is best done by the group.
5) The meeting should by consensus establish the obstetric and neonatal (for babies born alive) causes of death and then look carefully for avoidable factors. The meeting must never become a “witch hunt”, and should be confidential.
6) All decisions (causes and avoidable factors) made must be recorded/revised on the mortality sheets (Perinatal Death data sheets) for entry later onto a computer.
7) Problems with the provision of perinatal care in the hospital, the referring clinics and in communities must be identified and prioritised, and plans should be made and documented for addressing each problem.
8) Tasks arising out of discussions around cases should be assigned to team members, and minuted. Progress with the tasks should be reviewed at the start of the next meeting.

The meeting agenda

A typical mortality review agenda is as follows:
1) Welcome and introductions, and identification of a minute taker
2) Review of tasks set at last meeting
3) Summary of last meeting’s statistics
4) Summary of this meeting’s statistics
5) Case presentations
6) Task identification and allocation
7) Closure and date of next meeting

4. Epidemiology and Analysis

The power of PPIP lies in its ability to provide instant feedback on perinatal death and quality of care information to labour ward and neonatal staff. By simply initiating this systematic review process, change will happen.

It is however important both for the identification of broader system problems and for monitoring change that 6 monthly or annual reviews are performed.

These reviews should be compiled into reports, which document both findings and recommendations arising out of the findings. This is the point at which the power of PPIP can be used for communicating problems to managers. Once the process of mortality review is established in your site, the report will also look at success of implementation, and of response to, previous recommendations.

Making change happen

When making recommendations, it is important to link each recommendation clearly to specific information arising out of your PPIP review process. It is then useful to clearly define its requirements for implementation at each of the following levels:
1) Policy
2) Administration
3) Clinical practice
4) Education

Finally, responsibility for implementation at each level should be assigned, so that at the next review, implementation (or lack thereof) can be accounted for (as an example of this, see “Saving Children 2005”).

By conducting mortality reviews in this systematic way, we will both save lives and improve quality of care, through death auditing.

(Adapted from Philpott and Voce: “4 Key Components of a Successful Perinatal Audit Process”, Kwikskwiz #29, 2001)