Psychiatric causes of death

The women who died 2009 -13

Gwyneth Lewis  OBE  MPH DSc FRCOG  FACOG
Coincidental (Fortuitous) deaths

Deaths from unrelated causes which happen in pregnancy or up to one year after delivery.
1. In 50% of mothers with a previous puerperal psychotic illness it recurred on the same day after the next birth.

2. Along with domestic abuse introduced routine questioning at antenatal booking concerning history of mental health issues and puerperal psychosis.

3. Initiated pre-birth planning and rapid response teams to women identified at risk at first signs of symptom.

4. Introduced national guidelines.

5. We have a long history of mother and baby specialist units and pushed for more beds.
Death from suicide is now a direct cause of maternal death

1. Cases can be recognised and counted
2. No longer an unrecognised or “hidden” cause of death
3. Advocacy for recognition and treatment for mental health issues
4. Action can be developed to improve identification and management
5. Services can be developed to respond to these cases
Marian Knight
Maternal Lead – MBRRACE-UK
Maternal Mortality in the UK

1952-54
90 per 100,000 maternities

2010-12
10 per 100,000 maternities

2011-13
9 per 100,000 maternities
Maternal Mortality 2003-13

The graph shows the rate per 100,000 maternities with 95% Confidence Intervals for Direct and Indirect maternal death rates from 2004 to 2012. The rates have generally decreased over the period, with a slight increase in the latest years.
Maternal Mortality 2003-13

35% reduction in overall maternal death rate, p=0.005
Maternal Mortality 2003-13

53% reduction in direct maternal death rate, p=0.005
No significant decrease in indirect maternal deaths, p=0.28
## Overall assessment of care

Classification of care received for women who died and are included in the confidential enquiry chapters (n=248)

<table>
<thead>
<tr>
<th>Classification of care received</th>
<th>Deaths within 42 days (n=108) Number (%)</th>
<th>Late deaths (n=140) Number (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good care</td>
<td>44 (41)</td>
<td>43 (31)</td>
</tr>
<tr>
<td>Improvements to care which would have made no difference to outcome</td>
<td>23 (21)</td>
<td>36 (26)</td>
</tr>
<tr>
<td>Improvements to care which may have made a difference to outcome</td>
<td>41 (38)</td>
<td>61 (43)</td>
</tr>
</tbody>
</table>
The women who died: UK 2011-13

- 240 women died during pregnancy or up to 42 days postpartum
- 335 women died between six weeks and one year after the end of pregnancy
Causes of maternal death 2011-13

Dark bars show indirect causes, pale bars direct causes
Causes of maternal death 2011-13

*Rate for genital tract sepsis shown in pale and rate for indirect sepsis (influenza, pneumonia, others) in dark bar

Dark bars show indirect causes, pale bars direct causes
Indirect Maternal Deaths 2011-13

• 68% of maternal deaths in the UK
• Deaths due to mental health-related causes
  – 0.8 per 100,000 maternities
  – 1 in 11 of all maternal deaths during or up to six weeks after the end of pregnancy
Late Maternal Deaths 2009-13

- Malignancy: 28%
- Suicide: 4%
- Drug & alcohol/other psychiatric: 3%
- Acute myocardial Infarction: 9%
- Aortic dissection: 5%
- Cardiomyopathy: 9%
- SADS: 2%
- Other cardiac: 4%
- Stroke: 1%
- Epilepsy: 1%
- Other neurological: 1%
- Pulmonary embolism: 2%
- Venous Sinus Thrombosis: 1%
- Respiratory disorders: 2%
- Other medical conditions: 3%
- Group A Streptococcus: 1%
- Influenza: 1%
- Pneumonitis/other infections: 3%
- Homicide: 1%
- Accidents including RTA: 1%
- Amniotic fluid embolism/early pregnancy death/ eclampsia: 1%
Mental health-related deaths

Almost a quarter of women who died between six weeks and one year after pregnancy died from mental-health related causes.

1 in 7 women died by Suicide.
Classification of mental health-related deaths 2009-13

<table>
<thead>
<tr>
<th>Categorisation</th>
<th>Number</th>
<th>Rate (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suicide</td>
<td>101</td>
<td>2.3 per 100,000 (1.9-2.8)</td>
</tr>
<tr>
<td>Substance misuse</td>
<td>58</td>
<td>1.4 per 100,000 (1.1-1.8)</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>161</td>
<td>3.7 per 100,000 (3.2-4.4)</td>
</tr>
</tbody>
</table>

A further 5 cases which appear in other chapters also discussed here

Number of women whose care underwent detailed review

<table>
<thead>
<tr>
<th>Categorisation</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suicide</td>
<td>101/101 (limited information in 8)</td>
</tr>
<tr>
<td>Substance misuse</td>
<td>29/58</td>
</tr>
</tbody>
</table>
Timing of suicide

Number of women who died

<table>
<thead>
<tr>
<th>Time period</th>
<th>Number of deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antenatal 0-42 days</td>
<td>12</td>
</tr>
<tr>
<td>Postnatal 43-84 days</td>
<td>8</td>
</tr>
<tr>
<td>Postnatal 85-126 days</td>
<td>6</td>
</tr>
<tr>
<td>Postnatal 127-168 days</td>
<td>14</td>
</tr>
<tr>
<td>Postnatal 169-210 days</td>
<td>16</td>
</tr>
<tr>
<td>Postnatal 211-252 days</td>
<td>4</td>
</tr>
<tr>
<td>Postnatal 253-294 days</td>
<td>8</td>
</tr>
<tr>
<td>Postnatal 295-365 days</td>
<td>12</td>
</tr>
</tbody>
</table>
Method of violent suicide

<table>
<thead>
<tr>
<th>Method</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hanging</td>
<td>46</td>
</tr>
<tr>
<td>Fall from a height</td>
<td>15</td>
</tr>
<tr>
<td>Railway line</td>
<td>7</td>
</tr>
<tr>
<td>Drowning</td>
<td>4</td>
</tr>
<tr>
<td>Self-strangulation/asphyxiation</td>
<td>2</td>
</tr>
<tr>
<td>Stabbing</td>
<td>2</td>
</tr>
<tr>
<td>Intentional RTA</td>
<td>2</td>
</tr>
<tr>
<td>Other</td>
<td>5</td>
</tr>
</tbody>
</table>
# Characteristics of the women 2009-2013

<table>
<thead>
<tr>
<th></th>
<th>Suicide</th>
<th>Substance misuse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median age</td>
<td>29</td>
<td>30</td>
</tr>
<tr>
<td>Nulliparous (%)*</td>
<td>36.1</td>
<td>31.0</td>
</tr>
<tr>
<td>Ethnicity (% white)*</td>
<td>80.6</td>
<td>89.7</td>
</tr>
<tr>
<td>Employed (woman/partner) (%)*</td>
<td>76.3</td>
<td>47.8</td>
</tr>
<tr>
<td>Known to social serv. (%)*</td>
<td>27.3</td>
<td>74.1</td>
</tr>
<tr>
<td>Late bookers (% &gt; 12/40)*</td>
<td>30.0</td>
<td>59.3</td>
</tr>
<tr>
<td>Received minimal level of antenatal care (%)*</td>
<td>63.6</td>
<td>30.4</td>
</tr>
<tr>
<td>Received recommended level of antenatal care (%)*</td>
<td>24.7</td>
<td>20.8</td>
</tr>
</tbody>
</table>

*% excluding missing information
What we already know

Epidemiology of perinatal mental illness

- Pregnancy does not protect against new mental illness
- Women are at particular risk of new onset severe mental illness in the early postpartum
- Clinical picture characterised by rapid deterioration
What we already know

Key findings 2006-2008

• Failure to recognise suddenness of onset
• Poor information sharing between primary care, maternity and mental health services,
• Lack of detailed enquiry and naïve management for women with substance misuse
• Women who died of underlying physical illness had their symptoms downplayed or diagnosis delayed because of misattribution to mental disorder.
Booking assessments

- 11% inadequate or no enquiry about mental health history or current mental health
- Huge variation in questions asked
- Even where questions were in the booking proforma, they remained blank
Lack of recognition of symptom pattern and seriousness

- ‘Anxiety’ at first presentation
- Lack of recognition of escalating symptom pattern
- Assessments of serial presentations ‘in the moment’
- Use of terms such as ‘impulsive’ and ‘no planning’ when assessing suicide risk behaviour
- Reliance on patient reports despite evidence to the contrary
Estrangement from the infant

- 7 women expressed strong ideas of incompetence or estrangement from their babies
- Some arranged for infant to be cared for by others
Child loss or threat of loss

- Deaths in relation to child safeguarding proceedings
- Termination, miscarriage, stillbirth or neonatal death
Key messages

• Effective communication
• Red flags
  ✓ Significant changes in mental state
  ✓ New thoughts or acts of violent self-harm
  ✓ Expressions of incompetency/estrangement from the infant
• Triggers for consideration of MBU admission
• Additional training for Liaison/crisis/home treatment teams
• Support and education for families
• Greater awareness of this report among mental health staff
• Clinical networks
Specialised perinatal mental health services

4 women died in close relationship to MBU care
- 3 deaths by suicide shortly after discharge, or while on leave, from MBU
- 2 women had follow-up by non-specialised teams in local area
- 1 woman died while awaiting admission
- Inappropriate level of risk management or breakdown in communication of risk

11 women were involved with community specialised services but in the main care consisted of providing advice to general adult services
Perinatal Mental Health Care*

If the women who died by suicide became ill today:

- **40%** would not be able to get any specialist perinatal mental health care.
- Only **25%** would get the highest standard of care.

*Mapping data on community services from the Maternal Mental Health Alliance (http://everyonesbusiness.org.uk)
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