Analysis of 130 - PPO Reports
“Natural deaths”

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Mary Piper

Offender Health
Findings

- Report is based on a sample of all 130 PPO reports on natural causes (NCs) received between 2005 and the end of 2007.

- The majority (126) 97% of those in this sample were male.
  - The average age of male deaths was 52.
  - The average age of female deaths was 44.

- 108) 83% of deaths occurred amongst convicted prisoners
- (17) 13% deaths occurred amongst remand prisoners.

  - very different profile to self inflicted deaths
Age of male deaths

 AGE RANGE OF DEATHS

<table>
<thead>
<tr>
<th>AGE</th>
<th>NUMBER OF DEATHS</th>
<th>% of all Male Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-25</td>
<td>2</td>
<td>3%</td>
</tr>
<tr>
<td>26-35</td>
<td>10</td>
<td>12%</td>
</tr>
<tr>
<td>36-45</td>
<td>20</td>
<td>25%</td>
</tr>
<tr>
<td>46-55</td>
<td>22</td>
<td>28%</td>
</tr>
<tr>
<td>56-65</td>
<td>25</td>
<td>31%</td>
</tr>
<tr>
<td>65-75</td>
<td>20</td>
<td>25%</td>
</tr>
<tr>
<td>75 and over</td>
<td>15</td>
<td>19%</td>
</tr>
</tbody>
</table>
Place of death

Place of Death

- NHS Hospital
- General location
- Healthcare
- Other location:
- Hospice

Number
%
Cause of death

- Commonest cause of death- (46) 35% Myocardial Infarction (Heart Attack)
- 29 people (22 %) died from Cancer
Actual deaths v Expected deaths

Male Prison Natural Cause Deaths By Age: Actual Prison Deaths vs Expected Based on All Cause Mortality Rate ONS 2008* (Natural Causes Only)

<table>
<thead>
<tr>
<th>Age</th>
<th>Actual</th>
<th>Expected</th>
<th>95% Confidence Intervals</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-25</td>
<td>2</td>
<td>2.99</td>
<td>2.99 2.99</td>
</tr>
<tr>
<td>26-35</td>
<td>11</td>
<td>10.81</td>
<td>10.81 11.14</td>
</tr>
<tr>
<td>36-45</td>
<td>27</td>
<td>20.55</td>
<td>20.55 20.85</td>
</tr>
<tr>
<td>46-55</td>
<td>26</td>
<td>33.66</td>
<td>33.66 33.81</td>
</tr>
<tr>
<td>56-65</td>
<td>24</td>
<td>38.61</td>
<td>38.61 38.67</td>
</tr>
<tr>
<td>65+</td>
<td>36</td>
<td>45.32</td>
<td>45.32 46.16</td>
</tr>
</tbody>
</table>
PPO CLINICAL REVIEWS

• Majority (117) 92% clinical review carried out by the PCT responsible for commissioning prison healthcare services.
  – PPO investigator carried out eight clinical reviews (6%).

• 69% undertaken by registered healthcare professionals

• Current job title or roles not always included not known whether they were practising clinicians.
  – In 31 (24%) of cases the profession of the clinical reviewer is unclear.

• Only 6 (5%) of reviews were carried out by a review panel.
# Unsatisfactory care

<table>
<thead>
<tr>
<th></th>
<th>% of all prisons in sample</th>
<th>% of all prisons</th>
<th>% natural deaths</th>
<th>% deaths unsatisfactory care</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Public Sector Prisons</strong></td>
<td>93</td>
<td>66</td>
<td>86</td>
<td>14*</td>
</tr>
<tr>
<td><strong>Contracted prisons</strong></td>
<td>7</td>
<td>63</td>
<td>14</td>
<td>33*</td>
</tr>
</tbody>
</table>

One way z test - p<0.05
Care: Unsatisfactory/Serious concerns

- Failure to recognise or diagnose a serious condition,
  - A brain abscess, gastrointestinal haemorrhage (due to ulcer),
  - septic shoulder
  - peritonitis (due to an ulcer).
  - symptoms reported on numerous occasions but were often dismissed without investigation or standard tests being carried out.
  - In a few cases, no referral to a doctor when they presented with symptoms.

- A lack of competence in diagnosing complex illness.
  - In many cases, the diagnosis further delayed because patients reported the same symptoms to different staff on a number of occasions. No apparent overview of the case.

- Poor management of chronic illness such as, heart disease
  - Many appeared significantly ill on reception;
  - often a lack of care planning, pro-active management and monitoring of chronic long-term illnesses.
  - Community records were not chased which could have helped confirm diagnosis and aid further management.
RECEPTION SCREENING

- Did not take place in 2 cases
- In (51) 39% unclear whether secondary screening took place.
- In (21) 16% issues with the process.
  - failure to complete screening assessment or paperwork, failure to make appropriate referrals to the doctor
  - tests not undertaken.
- (8) 6% of cases medication not prescribed.
- Many cases standard protocols and procedures for reception screening & continuity of care not undertaken.
- Very limited follow up of community records even for patients under the care of hospital specialists and with significant illness.
Mental health co-morbidity

- Prior to custody 20 (15%) had a mental health diagnosis recorded.
  - (7) schizophrenia,
  - (7) depression,
  - (1) PTSD (Post Traumatic Stress Disorder),
- 15 referral for a mental health assessment 13 took place,
  - 1 patient with dementia,
  - 1 a brain injury,
  - 2 schizophrenia,
  - 2 PD,
  - 1 a personality disorder and psychosis
  - 6 people were confirmed as not mentally ill.
Co morbidity

- 2116% history of drug or alcohol abuse.
  - All recognised at reception.
  - 3 delay with “detox” medication
  - no other problems are recorded.
- 2 with a Learning Disability.
  - No in prison assessment
  - No record of Learning Disabilities team involvement in their care in prison.
  - 1 had LD support in the community.
CARDIOVASCULAR DEATHS

AGE OF DEATH FROM HEART DISEASE

<table>
<thead>
<tr>
<th>AGE RANGE</th>
<th>NUMBER OF DEATHS</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-25</td>
<td>3</td>
</tr>
<tr>
<td>26-35</td>
<td>8</td>
</tr>
<tr>
<td>36-45</td>
<td>8</td>
</tr>
<tr>
<td>46-55</td>
<td>9</td>
</tr>
<tr>
<td>56-65</td>
<td>10</td>
</tr>
<tr>
<td>65-75</td>
<td>8</td>
</tr>
<tr>
<td>75 &amp;</td>
<td>6</td>
</tr>
<tr>
<td>85 &amp;</td>
<td></td>
</tr>
</tbody>
</table>
Male CHD Observed v Expected Deaths

Male Prison Cardiovascular Deaths by Age - Actual Versus Expected on ONS

<table>
<thead>
<tr>
<th>Age</th>
<th>Actual</th>
<th>Expected</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-24</td>
<td>0</td>
<td>0.02</td>
<td>0.01</td>
</tr>
<tr>
<td>25-34</td>
<td>2</td>
<td>1.01</td>
<td>0.97</td>
</tr>
<tr>
<td>35-44</td>
<td>9</td>
<td>4.82</td>
<td>4.79</td>
</tr>
<tr>
<td>45-54</td>
<td>9</td>
<td>10.74</td>
<td>10.37</td>
</tr>
<tr>
<td>55-64</td>
<td>10</td>
<td>12.32</td>
<td>12.05</td>
</tr>
<tr>
<td>65+</td>
<td>14</td>
<td>26.30</td>
<td>26.08</td>
</tr>
</tbody>
</table>
CARDIOVASCULAR DISEASE DEATHS

• 23 (50%) had risk factors or symptoms recorded at reception.
  – medication prescribed further care planning, and management minimal.
• 8 (35%) reception screening problem
  – (7) 15% no care plan
• limited evidence of health promotion support or chronic disease management
• four (19%) care not satisfactory.
  – poor clinical management,
  – lack of recognition of symptoms of chest pain
  – poor management of acute heart disease - further symptoms not recognised in a timely manner.
  – Poor provision chronic disease management limited emphasis on health promotion
Cancer - age of deaths

MALE CANCER DEATHS BY AGE

AGE RANGE

16-25 26-35 36-45 46-55 56-65 65-75 75 & 85 &

NUMBER

1 6 9 6 4 3
Care of those with cancer

Primary care
- Not all cases met NHS referral timescales
  - 17 (59%) outpatient care
  - 16 (55%) inpatient.
- 12 people (41%) managed solely by prison healthcare team in their last prison.

Care planning
- Information on care planning is extremely limited.
- 5 cases poor palliative care planning.- particularly pain control.
- Quality of care varies greatly depending on the package of support put in place by the providers of care.

Nature of care
- In (2) 7% of cancer cases concluded that care was not satisfactory.
- Both critical of pain management and palliative care planning.
Deaths in those under 35

- 12 aged less than 35;
- 11 male
- Average age 28.
- In 4 (33%) issues over the quality of care provided
<table>
<thead>
<tr>
<th>AGE/SEX</th>
<th>CAUSE OF DEATH</th>
<th>CARE QUALITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>34 /M</td>
<td>Epilepsy</td>
<td></td>
</tr>
<tr>
<td>23/F</td>
<td>Brain Abscess</td>
<td>Serious concerns</td>
</tr>
<tr>
<td>31/M</td>
<td>Fits (PM nil)</td>
<td></td>
</tr>
<tr>
<td>22/M</td>
<td>Carcinomatosis</td>
<td></td>
</tr>
<tr>
<td>23/M</td>
<td>Acute Asthma</td>
<td>serious concerns</td>
</tr>
<tr>
<td>32/M</td>
<td>Epilepsy</td>
<td>Serious Concern</td>
</tr>
<tr>
<td>32/M</td>
<td>Brain Haemorrhage</td>
<td>Unsatisfactory</td>
</tr>
<tr>
<td>30/M</td>
<td>Coronary artery thrombosis</td>
<td></td>
</tr>
<tr>
<td>28/M</td>
<td>Aplastic Anaemia</td>
<td></td>
</tr>
<tr>
<td>32/M</td>
<td>Unascertained – Viral Pneumonia</td>
<td></td>
</tr>
<tr>
<td>34/M</td>
<td>Haemorrhage (caused by ruptured aneurysum)</td>
<td></td>
</tr>
<tr>
<td>31/M</td>
<td>Peritonitis secondary due to a perforated ulcer.</td>
<td></td>
</tr>
</tbody>
</table>
DEATHS IN THOSE AGED 36-45 YEARS

• 25 people died 36-45
• all male
• average age of 44.
• 12 (48%) Myocardial Infarction (Heart attack)
Cause of death 35-45

CAUSE OF DEATH OF THOSE AGED 36-45

- Heart attack or hypertensive HD
- Stroke
- Liver cirrhosis
- Cancer
- Bronchopneumonia / pneumonia
- Fits
- HIV (with liver cirrhosis & with meningitis)
- Gastritis (leading to inhalation of vomit / suspected OD)
PPO RECOMMENDATIONS- THEMES

- 130 (51%) were Clinical Care
  - reception screening, treatment, care planning,
- 95 (37%) Clinical information
- 23 (9%) Operational Factors affecting Care.
- 9 (4%) Staff skills and training
CLINICAL CARE-RECEPTION SCREENING

- 18(14%) concerned reception screening:
  - the need to record medical history accurately,
  - to identify the need for a referral
  - to complete screening,
  - to obtain information from the community
CLINICAL CARE - TREATMENT

- 21 (16%) of reports had recommendations about drugs prescribing and monitoring.
  - the need to monitor blood pressure when prescribing antihypertensives or during management of substance misuse;
  - to review follow up prescriptions,
  - monitor non-compliance and ensure patient receive medication in a timely manner.
  - Out of hours prescribing

- 16 (12%) failure to undertake health checks and regular tests i.e. monitoring blood pressure for conditions such as heart disease.
CLINICAL CARE

• 16 (12%) Failure to undertake chronic disease management appropriately
  – lack of care plans for serious conditions such as, heart disease and diabetes;
  – poor monitoring, assessment and management of chronic disease.

• 9 (7%) Poor substance misuse management

• 8 (6%) Palliative care management

• 8 (6%) Healthcare provision for people with disability
CLINICAL INFORMATION

• 95 (37%) management of information
  – recording data satisfactorily in medical records, data sharing, communication and place of care.

• (51%) 66 Poor Medical Record Keeping.
  – failure to record information correctly, prescription details, follow up appointments and medical history
  – leads to failure to recognise risk factors, to record medical history, leading to lack of appropriate referrals; poor care planning; delays in assessment

• 12 (9%) poor communication
  – failure to share information according to protocols and poor information between healthcare and other departments.
OPERATIONAL FACTORS AFFECTING CARE

• 23 (9%)

• Transfer to and from Secondary Care
  – delays in arranging transfers/ appointments
  – poor release planning communications

• Lack of escorts causing delays with appointments to secondary care – which then may not have been rebooked
STAFF SKILLS AND TRAINING

• 9 (4%) of all recommendations.

• Most common training need - emergency response.
  – Equipment not working
  – Unfamiliar with equipment
  – Not used to working as a team
  – When last updated on resuscitation
CONCLUSIONS

Improvements required:
• Reception screening
• Clinical information:
  – recording, sharing, seeking & IT
• Clinical & personal accountability & continuity of care
• Care planning & chronic disease management
• Coronary artery management - esp acute
• Seeking advice- Diagnosing complex illness
• Complex disease management -young people
• Knowledge management- CPD
• Working as a team
Action to Date

• **NPSA**
  – Death in custody - SUI
  – Endorsing PPO/OH clinical review document
  – Receive & review final PPO report

• **PPO**
  – OH funded researcher
  – Proforma developed; prospective data collection for easier analysis
Regional commission for NHS OH
Regional leads 2009-10

• Facilitate chronic disease management clinics - 1°, 2°, 3° management of CHD, Diabetes, COPD, asthma & epilepsy to permit data collection for relevant QOF indicators

• Implement NHS Health Check: Vascular Risk Assessment and Management for all those aged 40-75

• Evidence based protocols - acute chest pain, deteriorating angina, acute asthma and recurrent fits.

• Recognised training in ALS; practice as a team regularly; ensure all equipment in working order