HEALTH AND ADULT SOCIAL CARE
OVERVIEW AND SCRUTINY COMMITTEE

28 JANUARY 2014

UPDATE ON MORTALITY FIGURES

Report from: Barbara Peacock, Director of Children and Adults
Author: Rosie Gunstone, Democratic Services Officer

Summary
This report sets out an update on mortality figures for Medway Maritime Hospital. The Chief Executive of Medway NHS Foundation Trust will be present to introduce the report.

1. Budget and Policy Framework

1.1 Under the Council’s Constitution, Chapter 4 – Rules, Part 5, paragraph 22.2 (c) there are terms of reference for Health and Adult Social Care Overview and Scrutiny Committee to review and scrutinise matters relating to the health service in the area including NHS Scrutiny.

2. Background

2.1 On 29 January 2013 Members received a report on mortality statistics for Medway Maritime Hospital following the publication of a report by Dr Foster, a hospital data analysis organisation, showed that Medway NHS Foundation Trust (MFT) had the tenth worst "hospital standardised mortality ratio" (HSMR) in the country (out of 145 hospitals). A briefing on this position was made at a recent briefing for Members at the end of 2013 and an updated report has now been submitted.

2.2 Attached, as appendix 1, to this report is the briefing from the Chief Executive, Medway NHS Foundation Trust, as requested.

3. Risk management

3.1 There are no specific risk implications for Medway Council arising directly from this report.
4. Legal and Financial Implications

4.1. There are no legal or financial implications for the Council.

5. Recommendations

5.1. Members are asked to consider and comment on the update on mortality figures.

Background papers:

None.

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MEDWAY NHS FOUNDATION TRUST

MORTALITY ISSUES AND THE TRUST’S IMPROVEMENT PROGRAMME

BRIEFING FOR MEDWAY COUNCIL HEALTH AND ADULT SOCIAL CARE OVERVIEW AND SCRUTINY COMMITTEE JANUARY 2014

Introduction
This short paper, which will be supplemented by a presentation and discussion as HASC, aims to provide some background and context regarding mortality at Medway NHS Foundation Trust and the projects underway and THOSE planned in order to produce improvement.

To strengthen previous work on this issue, Medway FT created a Mortality Working Party late in 2012 chaired by Dr Alison Barnett, Director of Public Health for Medway. Membership included representation not only from Medway FT, but also Dartford & Gravesham NHS Trust, Medway and Swale Clinical Commissioning Groups, the NHS England Area Team and the Public Health at Medway Council as well as lay involvement through members of the Council of Governors of Medway FT. This group has not only overseen some of the improvement plans described below but also brought a more system wide view to mortality issues, including an analysis of cancer mortality which has looked at whole population issues as well as the role of Medway FT. The support and input of the Public Health team at Medway Council has been invaluable not only in terms of chairmanship but also valuable analytical support without which the population wide work would not have been possible.

Why is mortality important?
Standardised mortality rates (see below) were initially developed to examine the relative health of different populations (for example, different countries, different sexes, different ethnic or social groups) in order to allow policy makes to target resources appropriately.

In the late 1990’s a similar technique was used at hospital level, in order to try to provide a measure of overall clinical quality that could then be used to compare different institutions. The principal such measure was the Hospital Standardised Mortality Ratio developed by Professor Brian Jarman at Imperial College.

Measuring mortality
One key challenge in using mortality rates to compare different hospitals and institutions is that they have very different mixtures of patients. As an extreme example, a hospital in an extremely affluent part of the country that specialised in the elective (planned) care of young fit adults with minor bone complaints would naturally have a far lower mortality rate than another hospital which looked after very elderly patients with incurable cancers living in an area of high social and economic deprivation.

It for this reason that standardised mortality ratios are used, in order better to facilitate comparisons between organisations. Inside an organisation, however, unless there are significant changes in case mix, it is often easier to track mortality as the crude mortality rates – not least because (a) they are...
quicker to measure and (b) the changes observed are due to changes in that organisation’s clinical care rather than also being influenced by changes in what goes on elsewhere.

\[
\text{Crude mortality} = \frac{\text{Total deaths} + \text{Total discharges}}{\text{Crude mortality}}
\]

\[
\text{Standardised mortality} = \frac{\text{Expected mortality}}{\text{Expected mortality} + \text{Crude mortality}}
\]

*The expected mortality is what one would expect in that particular hospital and particular disease after corrections for things like age, sex, deprivation and other co-existing diseases.

In terms of measuring for improvement, an organisation needs first to examine its crude mortality and how it is changing but then, in order to see if it doing well by national standards, to examine standardised performance.

**Different forms of standardisation**

The different forms of standardisation can cause immense confusion and a brief explanation is included to try to reduce this confusion for members. The three in common use and the main differences between them are as follows:

<table>
<thead>
<tr>
<th>Measure</th>
<th>Company</th>
<th>Standardised according to diagnosis at:</th>
<th>All diagnoses?</th>
<th>How does it treat palliative care cases?</th>
<th>Includes post discharge deaths in community?</th>
<th>Typical delay in publication</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSMR</td>
<td>Dr Foster</td>
<td>Admission</td>
<td>No – about 80%</td>
<td>Corrects for them</td>
<td>No</td>
<td>2-3 months</td>
</tr>
<tr>
<td>SHMI</td>
<td>NHS Info Centre</td>
<td>Admission</td>
<td>Yes</td>
<td>Doesn’t correct at all</td>
<td>Yes, up to 30 days</td>
<td>7 months</td>
</tr>
<tr>
<td>RAMI</td>
<td>CHKS</td>
<td>Discharge</td>
<td>Yes</td>
<td>Excludes these cases</td>
<td>No</td>
<td>2-3 months</td>
</tr>
</tbody>
</table>

There are other differences but these are the major ones. There are strengths and weaknesses to each approach but they can give very different results (as they do for Medway FT) – and thus cause confusion.

**Mortality measures at Medway NHS FT**

For Medway FT the latest available numbers as at January 16th 2014 are as follows (in each case 100 is average, with statistical limits of “normal” surrounding that average):

<table>
<thead>
<tr>
<th>Measure</th>
<th>Number</th>
<th>Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSMR</td>
<td>112</td>
<td>Nov 2012 – Oct 2013</td>
</tr>
<tr>
<td>SHMI</td>
<td>108</td>
<td>Apr 2012 – Mar 2013*</td>
</tr>
<tr>
<td>RAMI</td>
<td>89</td>
<td>Oct 2012 – Sept 2013</td>
</tr>
</tbody>
</table>

*Note that SHMI data for July 2012 to June 2013 should be published just in time for the HASC meeting*
The widely publicised mortality measure, and the one that triggered the majority of Keogh reviews, is the HSMR. However, members will be aware that the message is not a completely clear one.

In relation to the deaths included in the HSMR measure, it can be seen in the left hand graph below that between 2003 and 2013 the mortality rate at Medway FT fell from 10.05% to 5.27%. However, the HSMR itself has fallen only from 118 to 112 as shown in the graph on the right.

The reason for this apparent discrepancy is twofold. First, hospital mortality rates during this period have fallen across the whole country. In 2001/2 the national average mortality rate in the HSMR group was 6.67% (remember that this is without any standardisation for case mix), and by 2011/12 (the last year for which national data are readily available) it has fallen to 4.22%. Second, the expected mortality for Medway FT fell even more sharply than this – from 9.06% to 4.48%. It is not clear why this fall is proportionately so much greater. Overall, however, crude mortality rates at Medway FT have fallen significantly over time.

**Improvement work in progress**

It would be easy either to blame all of the mortality data on some special factors about Medway FT and its patients that are not dealt with properly or fairly by the various mortality measures. To do so would be to lose a valuable opportunity to focus on our services and how to improve them.

There are a number of changes that have been shown elsewhere in the country to make a significant contribution both to reducing mortality rates, but also improving the efficiency and patient
experience in hospitals. Some of these have already commenced at Medway Hospital and these will be continued and broadened in their scope. Others require more fundamental changes in how we move patients through the hospital and are included in the Medway FT’s developing clinical improvement strategy named Transforming Medway.

The current and proposed changes include:

**Standardising pathways:** In many diseases and conditions there is more than one way of treating it. None is necessarily “the right way” to treat. However, if different clinical teams treat a single condition in different ways there is great scope for confusion about an individual patient’s care. Work at Northwick Park Hospital in London, amongst others, has shown a significant improvement in mortality by standardising care of different conditions within a hospital, reducing the variation between different clinical teams and ensuring that no important part of the “bundle of care” is omitted unless there are sound clinical reasons for doing so. We have already started some of this work and will extend it to other areas. Particular areas of success so far have been in the management of patients who have broken their hips and mortality in patients diagnosed with severe infections (“sepsis”). The latter area was of particular concern and was raised at the time of the Keogh review in summer 2013. The graph below shows the improvements in recent months.

![Graph showing improvement in septicemia](image)

**Ensuring there is better “flow” through the hospital:** While it may seem odd that mortality rates can be significantly reduced by changing where in the hospital patients are treated, there is good evidence that this is the case. A model where a large single assessment area for all medical admissions is created within a hospital (close to the A&E department, imaging (x-ray) and intensive care) and then ensuring proper “flow” of patients to the appropriate clinical areas is increasingly recognised as best practice for improving lengths of stay, patient experience and even A&E performance. In addition, it ensures that all patients are in the best part of the hospital for their particular condition as soon as they are admitted, and there is increasing evidence that implementing such a system reduces mortality.

This is a key component of the Transforming Medway plans and we believe it can now be achieved without the need for new building works by moving clinical services around and within the main hospital site but with the final aim of having a single adult Acute Assessment Unit of approximately 80 beds that will deal with emergency medical and surgical patients.
Ensuring early senior clinical review seven days per week: While the number of deaths at MFT is similar on all days of the week, there is compelling evidence that quality of care is improved by having senior clinicians involved at the earliest possible stage in a patient’s time at the hospital no matter whether it is a weekday or weekend. Some admissions may be avoided, and many definitely are shortened by good decisions at the very beginning of their stay. There is as yet no evidence on mortality, but the expectation is that this too would be helped by more senior clinical input. For these reasons, Medway FT applied for and was successful in achieving pioneer site status for the national seven day services programme run by NHS Improving Quality. The provision of seven day services is embedded throughout the Transforming Medway plans.

These plans, which together with the other programme themes in Transforming Medway have received the endorsement of clinicians both from inside and outside Medway FT (including CCG leaders), from our Board and Council of Governors will provide a platform to improve mortality, patient experience and other quality measures. We would be keen to present these plans at an early opportunity to HASC and to seek the support of members for them.