Nottinghamshire County Council Health Scrutiny Committee – 4th November 2013

Independent review of mortality – Overview of Scope, Purpose and Presentation of Findings

A. Background

The Mid Nottinghamshire Clinical Commissioning Groups (Newark and Sherwood and Mansfield and Ashfield) have commissioned an independent review of the factors impacting upon the mortality of their constituent populations. The review is designed to build upon the lessons from the Keogh Review at Sherwood Forest Hospitals NHS Foundation Trust, and also to consider whether changes in patterns of service provision in recent years affecting the locality have impacted upon mortality rates (e.g. Newark Hospital, cardiovascular services).

The Keogh Review focusses specifically upon mortality within the acute hospital setting. This independent review of mortality considers the wider factors that may impact upon mortality rates, acknowledging that there is an inter-play between public health and healthcare performance and between primary care performance/effectiveness and acute hospital performance. Therefore the independent review considers;

- Public health and population demographics
- Primary care access and performance
- Acute hospital access and performance

The review analyses all deaths; initial data analysis suggests that for the population of Mid Nottinghamshire:

- Around 55% deaths occur in hospital
- Around 17% of deaths occur outside hospital but within 30 days of discharge from hospital
- Around 28% of deaths occur outside hospital unrelated to a hospital admission

B. Over-arching aims of the investigation

- 1. To create a baseline assessment of different measures that provide an indicator of underlying mortality
- 2. To determine the factors that contribute to increased mortality rates ^{1 2} across Mid-Nottinghamshire CCGs.
- 3. To understand whether there are specific areas for improvement within resource allocation (healthcare commissioning decisions) and / or provider quality.

 $^{^1}$ 2012 Standardised mortality ratio for Mid Notts is approx. 109 compared to 99 for England (100 for England and Wales) and 101 for East Midlands and 102 for Nottinghamshire. This equates to around 280 more deaths per annum than an SMR of 100.

 $^{^{2}}$ Two out of three of the local acute providers have higher than expected observed deaths (as measured by SHMI)

C. Methodology:

The review has focused on analysis of datasets, and interpretation of the results. Audit of clinical notes/medical records, specific case reviews, and engagement at GP practice level will take place at the next stage if required.

Wherever possible, datasets have been linked to improve the quality of analysis (e.g. hospital, ambulance and primary care) by generating a pseudo-anonymised key to enable analysis whilst protecting patient-identifiable information.

D. Key Lines of enquiry of the Review and Areas of Focus for Findings:

The review has considered in depth the differential factors that may impact upon mortality across all settings. The terms of reference included:

- Analysis of mortality trends over the last 5 years, by postcode area and by registered general practice.
- The review seeks to determine whether there are correlations between GP practice mortality rates and areas of practice performance that warrant further investigation.
- The review considers whether there is an association between travel times to the nearest Accident and Emergency Department and mortality rates. This includes consideration of the impact of changes in travel times for different GP practice populations and whether there is any correlation with mortality rates over same period.
- The review considers whether any significant service changes have impacted on mortality rates (e.g., re-classification of Newark A&E to an MIU, ambulance performance trends). This includes development of a timeline and comparison of key events with any changes in absolute mortality or mortality rates.
- The review analyses specific in-hospital indicators that are associated with high mortality rates (e.g., numbers of transfers, day of admission, age ranges, patients not on appropriate specialty ward).
- The review considers the extent to which high levels of bed occupancy impact
 upon measures of poor performance such as levels of hospital acquired
 infection, errors and excess deaths. This analysis will be restricted to patients
 admitted to the Sherwood Forest Hospitals NHS Foundation Trust only, and is
 distinct from the work in relation to ward based performance required by the in
 accordance with the Keogh Review Action Plan.
- The review seeks to identify areas for improvement in end of life care (including patients dying in hospital, particularly after long length of stay or with palliative care designation). It will also consider whether care home residency has an impact on mortality rates.

- The review considers the impact of socioeconomic status on mortality rates across Mid-Nottinghamshire and potential reasons for variation (e.g. late presentation of diseases, lack of early detection).
- The review considers whether specific demographic groups are more likely to die earlier than expected across Mid-Nottinghamshire and to determine potential underlying reasons for variations (particularly using 2011 census data).

E. Presentation of the Findings

The independent review has been undertaken by a third party, with particular expertise in data analysis and statistical presentation. Triangulation of data is used to allow any uncertainty within the analysis to be bounded. Whilst the emerging findings have been tested with key stakeholders in the acute, primary care and public health sectors serving the localities, an independent clinical advisor from outside the region has assisted with the interpretation and presentation of the results of the analysis. The independent clinical advisor has also worked with the analysts to consider findings in the context of national trends and indicators.

The final report of the independent review is being concluded ready for publication on 4th November 2013. The report will contain an executive summary, detailed analysis of data, interpretation and findings and supporting appendices. The key findings will be presented to the Health Scrutiny Committee on November 4th 2013.

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