The Maternity Dashboard: how effective is it in improving maternity care?

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Abstract

It is vital to measure and monitor the quality of clinical care, workload, workforce available to deliver care, adverse incidents as well as user feedback (complaints and compliments) to ensure the delivery of patient centred care. Clinical governance refers to a system or framework through which National Health Services (NHS) organizations are accountable for safeguarding and improving the quality of care and services by creating an environment in which clinical excellence will flourish. Various 'score cards' such as the *'Maternity Dashboard'* have been designed to improve patient care and outcomes by benchmarking against regional or national standards and monitoring these different parameters closely on a monthly basis to avoid adverse outcomes. It is now widely accepted that score cards such as the *'Maternity Dashboard'* are vital and essential to ensure consistent delivery of high standards of care and to help clinicians, managers, local commissioners of the service, trust boards, users of the service and external bodies to appreciate areas of good care as well as to identify areas that require further improvement.

Keywords benchmarking; clinical care; clinical governance; dashboard; dissemination; goals

Introduction

Healthcare organizations owe a duty of care to their patients to ensure consistent delivery of excellent, patient-centered care of a very high standard. The general public expects the right care provided by the right person, at the right time, every time and substandard care is no longer considered acceptable. Safety is defined by National safety patient foundation as "avoidance, prevention and amelioration of adverse outcomes generated during the process of care".

The question then arises as to how to ensure that the right care is provided every time and this is only possible by judicious monitoring of the standard of clinical care which are benchmarked against gold standards and to constantly analyse user feedback to ensure that healthcare is not only clinically par excellence but also is patient-centred and is safe. This information should be

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disseminated to *all stakeholders* who are responsible for funding and designing of services and to the frontline staff who deliver services as well as to patients to determine whether the care provided meets their needs and expectations. Such an approach will ensure safeguarding and valuing excellent care, whilst making continuous improvements in other areas by ensuring a culture and an environment, which sustains and promotes clinical excellence.

The Royal College of Obstetricians and Gynecologists (RCOG) published a "Good Practice Series" on the Maternity Dashboard, which is currently being used in many maternity units in the UK. The 'Maternity Dashboard' is a clinical governance tool that helps to monitor outcomes on a monthly basis by comparing the observed outcomes with the pre-determined gold standards (i.e. goals) based on regional and national data or based on robust, high quality scientific publications. Sometimes, these gold standards are locally determined based on agreements with the local commissioners. These include Key Performance Indicators (KPIs) or Commissioning for Quality and Innovation (CQUINS).

Parameters to be monitored

There are different quality indicators that are monitored on Maternity Dashboard across the UK. The RCOG's original Maternity Dashboard divided these parameters into three groups; activity, workload and quality. However, it is vital that the Maternity Dashboard should reflect the needs of an individual maternity unit and the parameters should be chosen by the local multidisciplinary team based on the issues facing the individual maternity unit. For example, following the Healthcare Commission (HCC) Report on 'Patient Experience' in 2007 which indicated that poor patient experience due to poor staff attitude and behaviour was an issue that needs to be tackled at St George's Maternity Unit, 'Patient Complaints and Compliments' were added under 'Responsive Care' in the local Maternity Dashboard (Supplementary Figure 1). This was done to highlight to the staff the complaints received from our patients due to poor staff attitude and behaviour so as to promote a reflective practice and also to inform the staff the actions taken by senior management to improve patient experience. The target for poor staff attitude (i.e. staff being rude or unsympathetic to patients) was deemed *zero* by the multi-disciplinary team. The results were widely disseminated each month and, within 2 years, complaints due to poor staff attitude and behaviour was halved and was totally eliminated in 5 years. Similarly, if there is an increase in emergency caesarean sections during second stage of labour or in adverse incidents (e.g. 3rd degree perineal tears) then parameters such as failed operative delivery should be monitored so that targeted training could be offered to individuals in need of further training.

It is vital to ensure that the Maternity Dashboard is an evolving Clinical Governance Tool and therefore, when repeated 'green' is scored (i.e. gold standard is continuously met), the particular standard may be removed from the Dashboard and a new standard may need to be monitored. For example, after the introduction of the Algorithm 'HEMOSTASIS' to ensure a logical, systematic and timely management of postpartum haemorrhage, St George's Maternity Unit did not have a single case of peripartum hysterectomy for atonic or traumatic postpartum for over 5 years. Therefore, this parameter (i.e. peripartum hysterectomy) has been removed from the Maternity Dashboard. As it has scored 'zero' for over 5 years.

276

Setting the standards or goals

National, RCOG evidence or local guidelines can be used to set up the standards or goals for each parameter to measure the quality of performance and to identify any shortcomings. Modifications of national standards may be needed as per local complexity or population characteristics. It is a good practice for a local multidisciplinary team such as risk management team to get involved in setting the goals or standards after critically analysing the local factors (Figure 1).

At George's Maternity Unit, based on our excellent intrapartum outcomes (emergency caesarean section rate of 6–8% and hypoxic ischaemic encephalopathy rate which was half the national average), we were able to successfully negotiate additional funding from our local commissioners as CQUIN to ensure 24/7 resident consultant obstetric cover (i.e. 144 hours/week) as well as 1:27 midwife to woman ratio. These parameters were continuously monitored on the Maternity Dashboard because failure to achieve these stipulated standards would accrue a financial penalty for our Trust from the commissioners as the funding was obtained via CQUIN. Therefore, the Maternity Dashboard can also enable 'quality assurance' for the local commissioners.

The RCOG has suggested Red, Amber and Green (RAG) traffic light system to display the data on the dashboard. An individual unit should set up the upper and lower thresholds for each of the standards or goals with green indicating that the goals are met, amber (to indicate that goals are not met but still within the upper threshold) and red (upper threshold is breached). If a parameter scores red, it would require an immediate investigation or an action, whereas, an Amber score would alert the team to take appropriate steps to prevent entering the red zone.

Therefore, this 'colour coded' system provides an immediate visual information to help healthcare providers, commissioners and users to understand the overall quality and safety of care provided by the maternity unit and also to help identify the areas that need immediate attention to improve patient safety and quality of care.

Collection of data

The most important factor crucial for the success of the dashboard is the availability of reliable of the data in a timely fashion. Many units have a designated person for data collection and input (IT midwife or a data analyst). Information can be obtained from an electronic data management system (Euro King, Datix). For the purpose of accuracy, the data should be double-checked to ensure credibility. For example, number of elective caesarean sections or induction of labour obtained electronically can be cross-checked with the booking system. Similarly, the number of patient complaints and compliments could be obtained from complaints department or patient advisory and liaison service (PALS) and this could be cross-checked with the general manager of the service who deals with patient complaints within the department. Relevant comments should be added on the Maternity Dashboard to explain the data to provide the context. For examples, as a regional referral service for Abnormal Invasion of the Placenta, St George's Maternity Unit may have increased incidence of postpartum haemorrhage in a particular month due more referrals with placenta percreta received in that month.

Interpretation and dissemination of data

The aim of the Maternity Dashboard is to not only to provide robust data that helps reassure stakeholders with regard to the delivery of high quality care but also to help identify the areas where parameters are falling short of set standards so as to take swift action to avoid adverse outcomes. If an indicator is scoring red, an urgent action is warranted as it has breached the upper limit of the set standard and if it is not corrected immediately, it may cause a threat to patient safety or adversely affect the quality of care. The corrective measures may range from conducting an audit to obtain more information, to carry out staff training if clinical issues are identified or to undertake an urgent review of the service provision.

It is vital to ensure that the Maternity Dashboard does not descend into just another 'data sheet' but is a meaningful tool for stakeholders and patients to understand the quality of care provided. Therefore, the numbers need to be explained and the actions which are to be taken when standards are not met should be clear, explicit and should have a reasonable time frame.

The Maternity Dashboard is a useful tool to disseminate the performance report of the maternity unit electronically to all staff, managers, commissioners and users of the service on monthly basis. The results can be discussed in different meetings like obstetric risk meeting, Maternity Task force and Maternity Services Liaison Committee meeting.

Effectiveness of Maternity Dashboard

- Tool for improving clinical care: The Maternity Dashboard helps to identify the clinical or organizational parameters
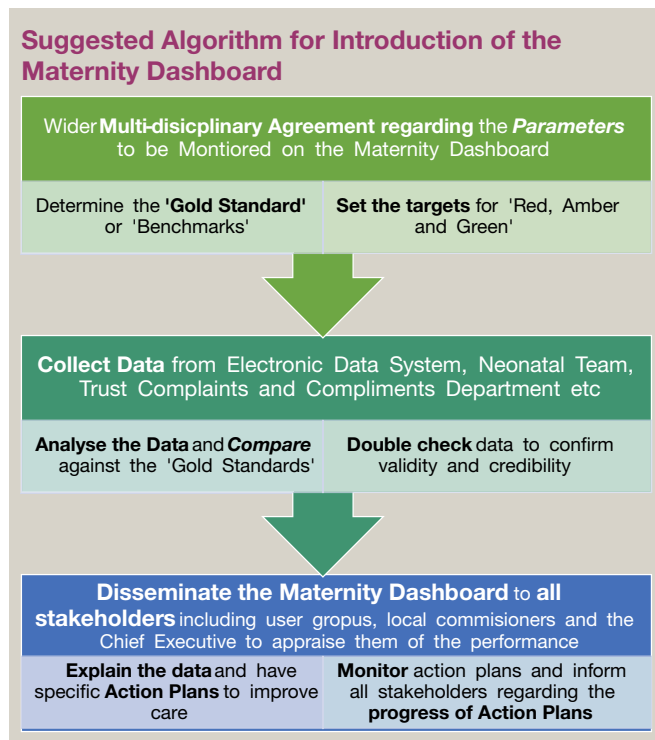

Suggested Algorithm for Introduction of the Maternity Dashboard

Wider **Multi-disicplinary Agreement regarding** the *Parameters* to be Montiored on the Maternity Dashboard

Determine the **'Gold Standard'** or **'Benchmarks'** | **Set the targets** for 'Red, Amber and Green'

Collect Data from Electronic Data System, Neonatal Team, Trust Complaints and Compliments Department etc

Analyse the Data and *Compare* against the 'Gold Standards' | **Double check** data to confirm validity and credibility

Disseminate the Maternity Dashboard to all **stakeholders** including user gropus, local commisniers and the Chief Executive to appraise them of the performance

Explain the data and have specific **Action Plans** to improve care | **Monitor** action plans and inform all stakeholders regarding the **progress of Action Plans**

Figure 1