Developing and Implementing a Clinical Dashboard to support the effective transfer and utilisation of knowledge to improve decision making and quality of care

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MEET THE TEAM

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What are Clinical Dashboards?

“A Clinical Dashboard is a toolset of visual displays developed to provide clinicians with the relevant and timely information they need to inform decisions that improve the quality of patient care”

(NHS, 2009)
Knowledge transfer is a means of communicating knowledge to relevant stakeholders through a variety of methods (Pentland et al, 2011),

In healthcare, the use of Clinical dashboards to transfer knowledge are reported to drive change, enhance clinical performance, improve decision making and quality of care. (Chandrahana, 2010; Nutley et al, 2013; Clark et al, 2013)
Donabedian’s Conceptual framework for Evaluating Quality of Care (1966)

- Linking process data with structure and outcomes measures is recommended to see the influence on quality of patient care *(HSE, 2015)*

- Clinical dashboards provide a platform where multiple sources of existing data, on structure, process and outcomes are utilised to provide a comprehensive picture of an organisation progress *(NHS, 2007)*
An action research group project. The HSE Change Model (2008) was utilised to guide the project.

The project team were also involved in the role out of Quality Care Metrics in the organisation. This was seen as an opportunity to link structure, process and outcome data.

This project involved the development and implementation of a clinical dashboard for two pilot wards. A framework (SOP) was also developed to guide the utilisation and governance of the dashboards.

Since completion of the masters programme, membership of the project team has expanded, and work has continued on the development of an electronic dashboard.

The electronic prototype is near completion. It has been developed to display data pertaining to pressure area care in our organisation as follows:

- Structure Data – daily staffing levels
- Process Data – quality care metric results
- Outcome Data – the prevalence, grade and whether hospital/community acquired etc
Clinical Dashboard – Before
## Benefits

<table>
<thead>
<tr>
<th>Organisational Perspective</th>
<th>Literature</th>
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<tbody>
<tr>
<td>Increased Communication and information sharing, information is readily accessible, saving time</td>
<td>Improves communication of knowledge, access to information, (Daley et al, 2013; McLaughlin et al, 2014, and Clark et al, 2013)</td>
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<td>Improve Quality of care/services Aid Clinical decision making</td>
<td>Helps engage and improve communication between frontline staff and senior leaders; resulting in high level decision making processes and improvement in efficiency and quality of care for patients (Heenan et al, 2012; Clark et al, 2013).</td>
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<td>Improved staff awareness</td>
<td>Key to gaining attention and changing behaviour (Meijer's et al, 2013)</td>
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<td>Highlighted seasonal trends</td>
<td>Raised awareness of problems/deficiencies in workforce training and clinical skills. (Guha et al, 2013)</td>
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<td>Allowing local configuration and comparison against national data sets</td>
<td>Instrumental in building business cases (Flannigan et al, 2012)</td>
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Driving V Restraining Forces

Driving Forces:
- HSE Reports,
- DOHc Strategy/projects,
- HIQA,
- Hospital Strategy
- Governance
- Quality Metrics
- Improved Quality of care,
- Reduced length of stay
- Cost Saving

Restraining Forces:
- Change Fatigue/Cultural Change/Interdisciplinary
- Stakeholder Engagement and support
- Shared Vision
- Resources–IT, Project Team
- Reliability/Quality of Data
- Cost
- Infrastructure Staff Access
To expand existing clinical dashboard

To implement clinical dashboards across all clinical sites in the organisation,

To build on the concept of Interdisciplinary clinical dashboards

A Project Team to be released with key personnel to include IT personnel, business intelligence, nursing etc to facilitate the implementation of this project

Dedicated IT resources and support for clinical dashboards

Investment in the area of data quality; measures to ensure reliability and validity of data.

Development of an education and training programme to create a culture of data usage.
References


