Using Data to Support Improvement

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Background:
The Incident Management Framework 2018 emphasises the need for services to learn and to make changes that will improve patient safety and the service user experience. Step six of the Framework relates to improvements in planning and monitoring, including action plan development and sharing of learning.

Our QI project took place in a non-acute urban hospital with an on site Quality & Safety Manager and Quality & Safety Committee and a sub-committee for the specific monitoring of incidents and action plans.

Methods

Approach

The Model for Improvement2 was applied to promote the implementation of actions arising from incident management as opportunities to learn and to improve patient safety through the testing out of the Plan - Do - Study - Act (PDSA) cycle.

Measurement for Improvement tools and techniques were used to enhance governance and staff engagement. A pre and post survey was administered to the Q&S governance Committee to evaluate whether the project resulted in an improvement.

Through process mapping and semi-structured interviews, an opportunity to improve data management and introduce visualisation tools for action and incident data was identified.

Free and open source statistical programming language R and RStudio were used to produce an interactive data visualisation dashboard.

Interventions

1. Incident and Action Tracking Tool (IACTT)
   - IACTT provides a consistent linked reporting structure for actions that have arisen as a result of incidents
   - It can be live edited and reviewed during the governance meetings
   - Display of the status of the implementation of actions
   - Recording of a responsible person for each action

2. Data Visualisation Dashboard
   - Links to IACTT data to provide a way to simply navigate through, explore and display the data
   - Clear and visual way of presenting the data in Pareto charts, run charts, c charts, stacked bar charts and timeline visualisations for both incident and action data
   - Enables early pattern recognition of incidents e.g. identification of multiple incidents by service user or multiple incidents of the same type in defined locations

Evidence for Improvement

After using the tools, the Q&S Manager and Committee reported enhanced knowledge of information, usefulness and engagement with data:

- The way data is presented is useful
- The way data is presented is engaging
- The data I view regarding actions arising from incidents keeps me informed of their progress

Q&S governance Committee commented:

3. Total incidents presented at Q&S subcommittee:
   - Before 13%
   - After 100%
   - Number of actions with an assigned responsible person
   - Before 63%
   - After 100%

Acknowledgements & References


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Further Information

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Measurement for Improvement Resources

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