

Visual Costing Analysis

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To complement implementation of a daily patient level costing tool, Darling Downs Health has developed a series of QlikView dashboards to support identification and analysis of cost and length of stay outliers. These are visualised through scatterplots, bar graphs and tables, with drilldown and filters. We have found these to be effective audit tools to identify data and processing errors, and to identify root causes of relatively expensive treatments. They have also proven to be intuitive cost reporting tools for financial management teams.

In November 2017 implementation of CostPro+ as a replacement patient level costing application was completed. As this supported automated daily costing, we wanted reporting tools that would allow regular review of costed episodes, and identification of those areas responsible for the majority of higher treatment costs. While developed as an audit tool for the costing team, these were also suited to profitability analysis by our business management teams.

We were able to leverage the sequel server data structures used by the costing application to develop tables, views and stored procedures which we could then connect directly to Qlik dashboards, then deploy these for general use on a Qlik server portal accessible by all health service staff.

While comprehensive, the dashboards can be refreshed in around one hour for three years data, with good response times for users.

Specific drill downs at patient level have been built to show the usual causes of increased treatment cost; theatre labour and prosthetics, medication, diagnostics, nursing specials, blood products and ambulance transport charges.

Outcomes have been; improved costing data quality and reliability, automated audits of cases likely to have undocumented and uncoded complications of care, and clear evidence of classification failure within the ARDRG model.

The presentation will discuss development and implementation, and show selected Qliks illustrating the data audit and cost analysis process.