

Introduction

The Clarity Informatics Quality Improvement Service (QIS) is a whole system review of care from defining a clinical priority to reporting of clinical measures and metrics. **It has been proven to save lives and save money.**

Background

There are many drivers to measure and deliver clinical quality improvement. Whether you are an outlier for performance, interested in your baseline data or want to improve your processes, QIS can help.

QIS has been used for the past seven years in three large areas of secondary care in the North East, North West and South East coast of England. In that time, we have expanded our clinical focus from five to eleven patient pathways.

These pathways are;

- acute myocardial infarction
- coronary artery bypass grafting
- community acquired pneumonia
- heart failure
- hip surgery
- knee surgery
- dementia
- first episode psychosis
- stroke, acute kidney injury
- chronic obstructive pulmonary disease and
- sepsis

These areas of activity relate to the creation of measure sets within each pathway. The measures are created by clinical collaboration and based on the latest evidence base. We collate SUS data from the involved trusts and ask that you add to this with your own data points for each patient, relevant to a clinical measure. For example, '*time of antibiotic administration*'. As soon as this information has been added it is visible at a patient level and trust level aggregate on our web-based tool. In addition to these high quality reports we can also guarantee compliance with national CQUIN targets.

For example, the sepsis pathway implemented in the North East complies with requirements of the National Sepsis CQUIN allowing trusts to collect, and report, quality measure specific data and CQUIN data within our software solution.

Measures are reviewed regularly at local clinical collaboratives. These meetings offer time to review results and to discuss progress specific to particular metrics or performance.

Results

Over the past seven years there has been a demonstrable improvement in the care scores across all clinical pathways. This translates into a narrowing of variation of provision of service between trusts, sharing of good practice, reduced length of stay, reduction in mortality, improved working relationships in teams and other clear clinical quality outcomes.

Our approach has also been validated and peer-reviewed, [Reduced Mortality with Hospital Pay for Performance in England](#). This paper demonstrates that QIS saves lives.

It has also been demonstrated to save money, [the cost-effectiveness of using financial incentives to improve provider quality](#).

Below are some examples of the type of reports which form a standard part of our output which could be made available to you and your organisation.

Figure 1.

An example of a measure performance chart outlining adherence to measures in community acquired pneumonia.

Measure	Apr-Jun 2014	Jul-Sep 2014	Oct-Dec 2014	Jan-Mar 2015	Apr-Jun 2015	Jul-Sep 2015	
CAP-1: Chest X-ray or CT Scan of Thorax within 4hrs of Hospital Arrival	82.8%	81.1%	80.5%	80.2%	83.8%	84.8%	
CAP-2: Oxygen Assessed within 1hr of Hospital Arrival	95.7%	96.1%	90.9%	85.0%	83.3%	92.2%	
CAP-3: Oxygen Prescribed within 1hr of Hospital Arrival	43.9%	62.6%	87.2%	76.6%	76.8%	85.8%	
CAP-4: Initial Antibiotic Received within 4hrs of Hospital Arrival	73.8%	65.5%	61.5%	61.7%	68.0%	75.1%	
CAP-5: Appropriate Antibiotic Received	63.4%	67.1%	68.1%	58.4%	55.4%	71.1%	
CAP-6: CURB-65 Score Recorded	57.0%	56.3%	50.0%	49.1%	50.0%	44.8%	
CAP-7: Critical Care Advice given if CURB-65 Score = 4 or 5	6.0%	6.2%	4.7%	3.8%	100.0%	100.0%	
ACS: Appropriate Care Score	44.6%	47.1%	46.1%	43.3%	43.3%	42.0%	
CPS: Composite Process Score	67.5%	68.8%	67.3%	64.1%	72.4%	76.3%	

Note: The dark green bar on the Sparkline chart indicates the highest score, the red bar indicates the lowest score.

Figure 2.
An example of performance of clinical measures by day of the week.

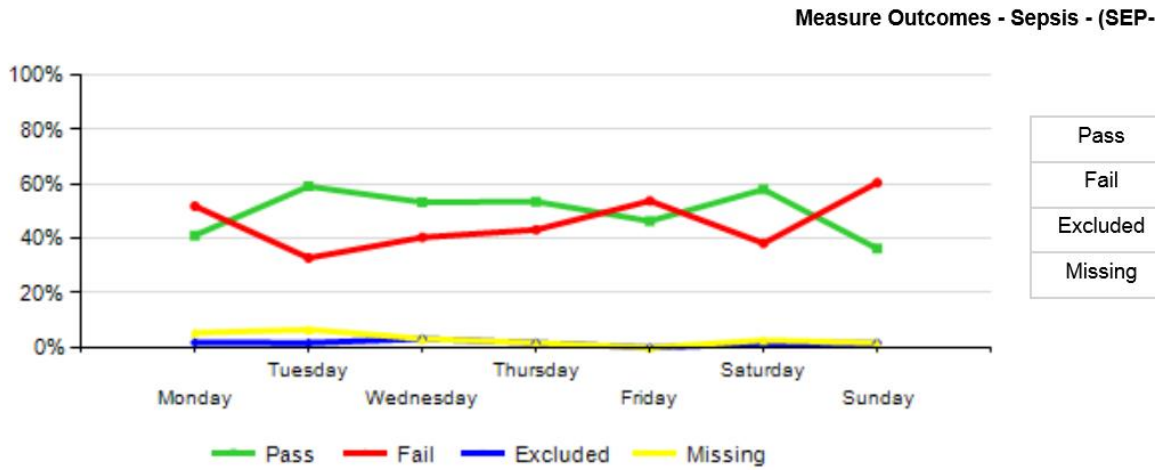
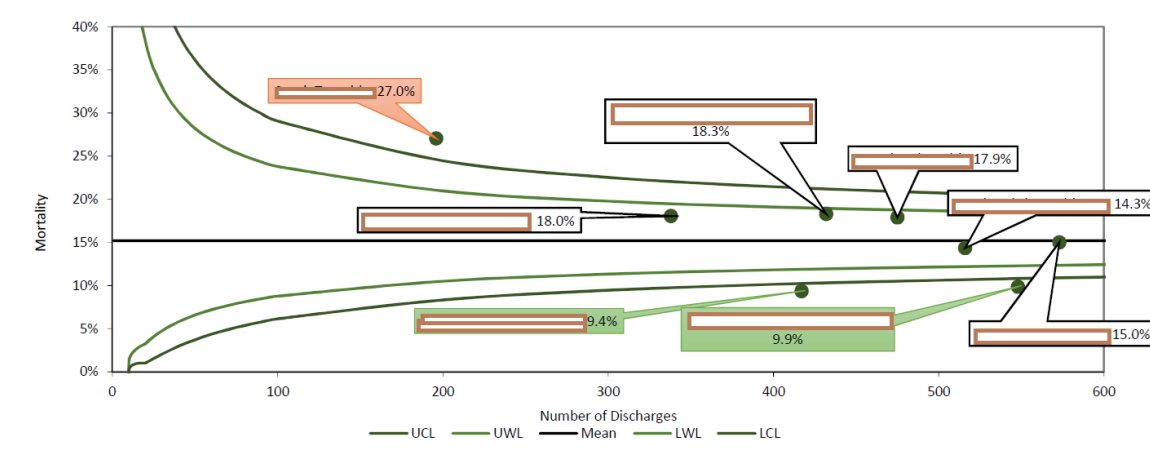


Figure 3.
An example of a funnel plot comparing mortality between participating trusts.



This is now a tried and tested approach to quality improvement in secondary care. Trusts use this information to drive clinical improvement, team cohesion and service provision in addition to creating a database for achieving CQUIN targets. Future developments include new pathways for atrial fibrillation, obstetrics, carcinoma, end of life care and also primary care indicators.

Our team are on hand to support you. To learn more please contact info@clarity.co.uk.