

# Reduction in routine blood requesting in an ITU department.

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## Introduction

An aim of the Scottish Government 20/20 vision is that care will be provided to the highest standards of quality and safety, with the patient at the centre of all decisions.

Promoting high value care has always been an important concept in medical care and has significant implications especially for critical care, where unnecessary laboratory tests can become part of daily Intensive Care practice.

'Demand optimisation' is defined as the process by which diagnostic test use is optimised to maximise appropriate testing which in turn optimises clinical care and drives more efficient use of scarce resources.

The aim of rationalising laboratory measurements is to promote reasonable and well balanced use of the valuable yet pricey diagnostic tool.

## Aim

To reduce unwarranted routine blood requests in ITU.

This is in-keeping with the Scottish Government's 20/20 vision for care quality and with national demand optimisation strategies.

Our ITU is one of the early adopter sites for testing the Value Management Approach and we wanted to understand how our service delivery interacted with this model and to explore ways that laboratory data could contribute to the model.

## Method

We adopted a quality improvement approach to the study.

Monthly laboratory request data for ITU was collected and we identified the most common laboratory requests.

We identified baseline request patterns on these analytes prior to launching three educational interventions.

We streamlined the time at which requests were initiated.

We increased staff awareness of the issue and we agreed guidelines for laboratory requests.

We used run-chart methodology to demonstrate that changes really brought about improvement.

We were keen also to identify cost savings in our work.

## Results

Following our interventions, we found improvements were made in some but not all parameters.

For example, we report a reduction in unwarranted coagulation studies (Fig 1 from 140 to 90 per month) and in lactate (Fig 2 from 80 to 50 per month) and bicarbonate (Fig 3 from 100 to 50 per month) requesting.

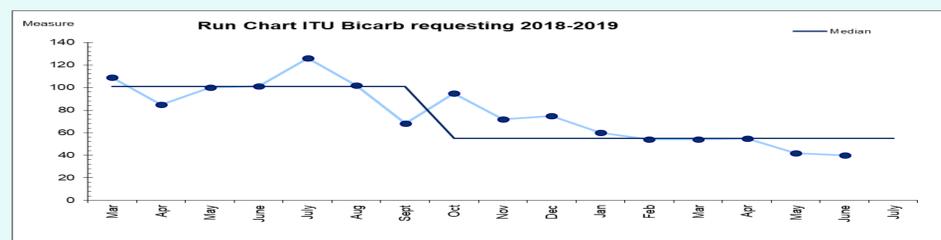
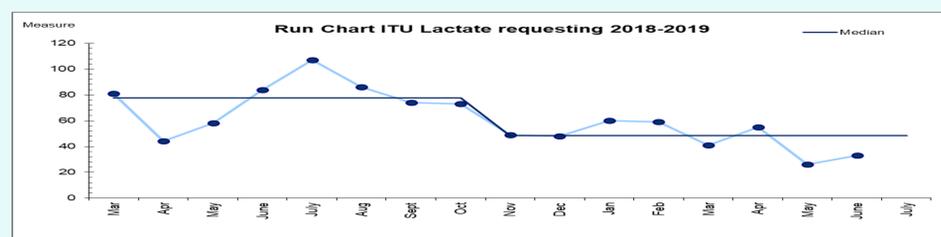
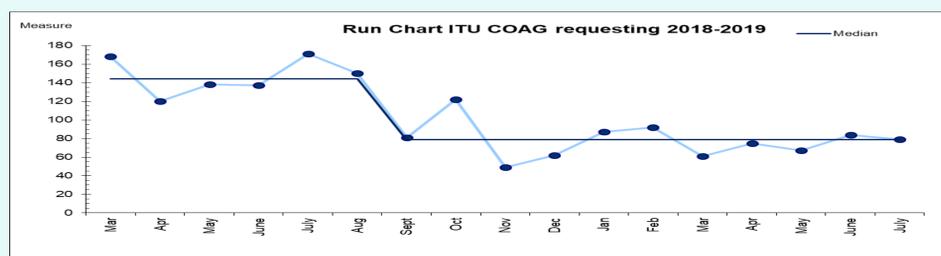


Fig 1,2&3. Run-charts showing total requests (y-axis) by month (x-axis). The horizontal line is the median and an improvement is seen if that line moves closer to the x-axis. In each case shown, an improvement is evident although further improvement may be possible.

## Conclusion

We report here a quality improvement approach that uses laboratory data in a novel way to reduce unwarranted requests in a busy ITU department.

Further work will explore other interventions and how well successful interventions have embedded in routine practise together with what components of the change model can be transferred to other clinical areas.

Some of this data has been presented at the British Critical Care Nurses Conference.

