

Raising the Standard,
4th edition RCoA QI compendium
Putting together the new edition

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A new edition

- HSRC fellow appointed
- Decide on content
- Commission writers
- College consultation
- Editing, proofing, design
- Publication 1st Sept 2020



Editors left to right
Dr Carolyn Johnston
Dr John Colvin
Dr Maria Cheresheva
Prof Carol Peden

Section A

- Update of QI methodology-text book
- Covers all of new RCoA 2021 curriculum
- Explains in details methods and techniques mentioned in section B of the book

A9 How do you know a change is an improvement? Using run charts

Dr Małczon Daniel, Glasgow Royal Infirmary
Dr Andrew Longmate, NHS Forth Valley

Data collection is part of all improvement work. Collected data have traditionally been presented in summary format, either as a single numerical figure or as two numbers before and after an event. Whenever two numbers are compared, they are likely to be different. Anything that is measured will be found to vary over time. Summarising data in aggregate blocks removes the vital clues that exist in plotting data on a graph in time series. Plotting each data point over time allows construction of run charts, a simple but powerful tool for examining whether a change has occurred.

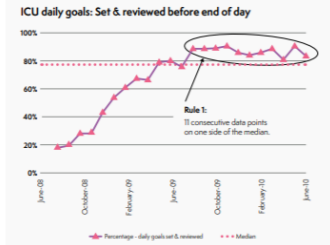


Figure A9.1: Run chart showing that a shift has occurred; that is, when six or more data points lie on the same side of the median.

How to construct a run chart

Plot time on the x axis and the measurement on the y axis. Enter your data. Once the data are plotted calculate and create a central line using the median (the middle value). Using the median as the centre line has two advantages: it is the point at which half the data points lie above and below the centre line, and it is also resistant to the effects of extreme outliers. All spreadsheet programmes will have a command for this.

How do you know a change is an improvement using a run chart?

Often, when we look at data, we can overreact to the data and apply subjective rules to affirm whether a 'shift' has occurred or whether a 'trend' is present. There are specific

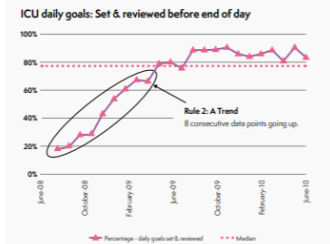


Figure A9.2: Run chart showing a trend. There are five consecutive data points (or more in this case) increasing in sequence.

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A16 Habits of an improver

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Most of this book takes the perspective of helping you and your team with practical guidance on how to structure your measurements and use the correct improvement tools. We know that this is only part of what is needed to make improvements, and that training in improvement methodology alone does not result in staff feeling confident and capable to do quality improvement work.

Professor Bill Lucas and Hadjer Nacer from the Health Foundation have proposed a different way at looking at the field of improvement, describing the key 'habits' seen in people undertaking improvement. These habits are complementary to skills or knowledge, and the proposed 'habits' are being used to develop quality improvement teaching and the curriculum to ensure that we are not just knowledgeable, but that we can use learned improvement skills in the real-world environment.



Figure A16.1: The habits of an improver.

Reference
1. Lucas B, Nacer H. The Habits of an Improver: Thinking About Learning for Improvement in Healthcare. Thought Paper. London: Health Foundation; 2015.

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Section B

- Pre operative
- Intra operative
- Post operative
- Emergency
- Day surgery
- Paediatrics
- Obstetrics
- Pain
- ICU
- Day Surgery
- Remote sites
- Delivery of Services
- Neuroanaesthesia
- Cardiothoracic

412 pages

120 contributors

132 'recipes'

New content

- New cardiothoracic chapter
- TIVA
- Environment
- Wellbeing/fatigue
- Regional
- Vascular
- Anaemia
- Blood management
- Prehabilitation
- Frailty
- Trainee supervision
- DrEaMing
- Spinals in day case
- Local anaesthetic toxicity
- Delirium
- Rib fractures
- Shared decision making
- Many new ITU recipes

Each recipe topic contains:

Why do this quality improvement project?

Background

- ✓ Best practice standards and
- ✓ suggested measures
- ✓

Suggested QI
methodology

Links to GPAS,
curriculum and
ACSA

- 1.
2. Further reading and references
- 3.
- 4.

Best practice

Intraoperative nerve blocks

Consider nerve blocks for all patients undergoing surgery.⁴

Measures

- Percentage of patients receiving nerve blocks.
- Percentage of blocks performed under ultrasound guidance.

Perioperative pain management

Anaesthetists should implement an analgesia protocol covering admission to discharge.¹ It should include regular paracetamol, peripheral nerve blocks and immediate-release oxycodone as rescue analgesia.

Non-steroidal anti-inflammatory drugs, tramadol and codeine should be avoided.

Measures

- Preoperative and postoperative pain scores.
- Analgesia modalities.
- Time to first analgesic input.

Outcomes

Admission to time to discharge vs/cancellations.

4.2.3.1, 4.2.3.2

BK 09, OR BK 11, OR IS 01, OR IS 02, OR HS 04, OR HS 05

13, 3A08

18, 2.3.19, 2.3.20, 2.5.24, 3.2.21, 5.2.31, 5.2.32, 5.3.2, 5.5.28, 5.9.13, 16.1.14, 5.3.18, 16.3.19, 16.5.22,

References

1. White SM et al. Statement on the incidence of postoperative pain. Anaesthesia 2010; 65: 1000-1001.
2. Royal College of Anaesthetists. Annual Report 2010. London: RCP; 2011. [national-hip-surgery](#)
3. National Institute for Health and Care Excellence. Perioperative pain management. www.nice.org.uk

perioperative physical journey! The key to reducing the incidence of postoperative pain and re-enablement.

Best practice

- The NHFD outline produced against Excellence guide
- Association of Anaesthetists
- International Fracture Association

Suggested data

Prompt surgery

Surgery should be performed within 1 hour of admission,¹ and at this objective. Ensuring that patients are not delayed due to inadequate comorbidities² and Part A Quality Improvement

Difficult bits

- GPAS standards changing!
- Keeping contributors to tight deadline
- Ensuring content uniform and important content included
- Editors geographically dispersed
- Covid!!



Thank you

Acknowledgements

We wish to acknowledge a considerable debt of gratitude to all the contributors to the earlier editions, 2000, 2006, 2012. It is testament to the foresight of the editors of the first edition, Dr JA Lack, Dr LA White, Dr GM Thoms and Dr A-M Rollin, that, over 20 years on, their original strapline 'continuous quality improvement in anaesthesia' is now more generally recognised in the application of the emerging science of improvement across all branches of healthcare.

120 writers, chapter and QI editors who have contributed to the 4th edition