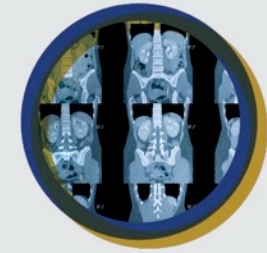




Quality
Leadership
Be remarkable

Always! Best care



Surgical Antibiotic Prophylaxis

“Have we got it right”?

M. Leadsom Infection Prevention Practitioner

M. Griesel Ward Clinical Pharmacist

M. Barnes Theatre Matron



You're in safe hands

Context

This quality improvement project was conducted in the main theatres and was led by

- the infection prevention practitioner
- the ward pharmacist

In collaboration with

- key members of staff in theatre
- a senior anaesthetist



Support & Collaboration

- Senior Hospital Management
- Antibiotic Stewardship Committee
- Microbiologists
- Physicians Advisory Board
- Theatre Forum (chair held by senior surgeon)
- Infection Prevention Committee
- Individual surgeons & anaesthetists

Problem

There was:

- no previous research into compliance.
- no evidence to prove patients were receiving prophylactic antibiotics in line with best practice.
- no local guidelines available for reference.

Obstacles to measurement

- incision time often *not* recorded in peri-operative document (no prompt requesting staff to do so).
- antibiotic dose and time of administration *not* always recorded.

Our Mission

- the aim of the intervention is to ensure each and every patient receives the correct antibiotic at the correct dose at the right time and for the right duration of time.

“ Perfect Prophylaxis”

- and to ensure this is integrated into the surgical site bundle, whilst addressing all aspects of antibiotic stewardship.

Our Vision

Our mission is aligned with Netcare's triple aim goal in providing

Best patient experience & outcome in the most cost effective way



Interventions

- All peri-operative documents are ink-stamped with incision time on arrival in theatre receiving.
- There is a cutting time prompt on the theatre board.
- Designated person calls out the cutting time for logging.
- Ensure time and dose of antibiotic administered is clearly documented.
- Prescription charts are followed up to measure if antibiotic stopped at 24 hours (or sooner).
- Local guidelines made available to all.
- Aspects of non-compliance addressed with relevant surgical team.

Change Strategy

Institute of Healthcare Improvement

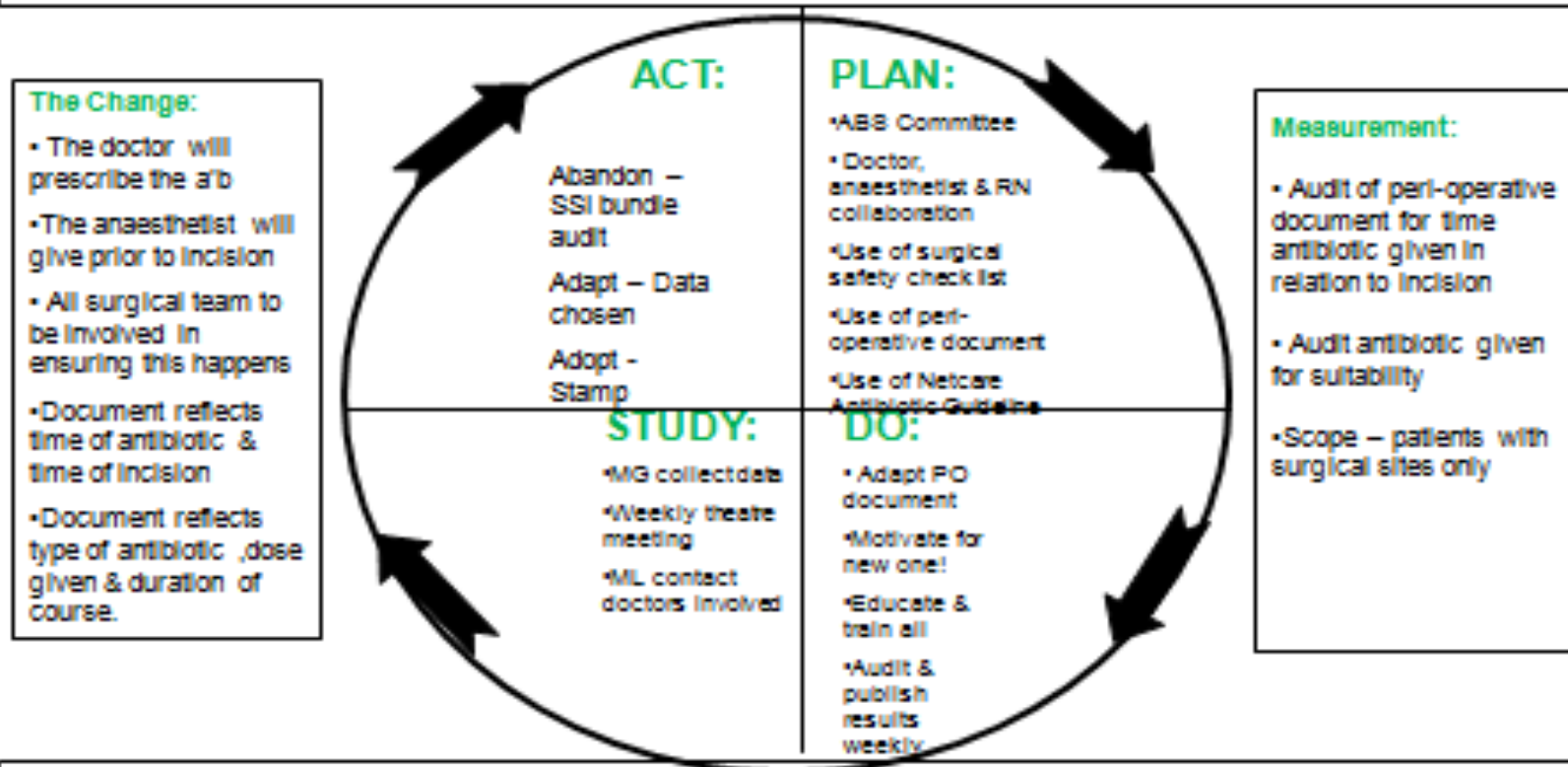
- “Collaborative Model” 2003
- “Going Lean in Healthcare” 2005



A Series of PDSA Cycles (learning, action.... PDSA)

PROBLEM: Antibiotic Prophylaxis not given within 60 minutes of surgical incision time

AIM of this change: To ensure patient receives antibiotic prior to surgical incision in line with global best practice to improve patient outcomes

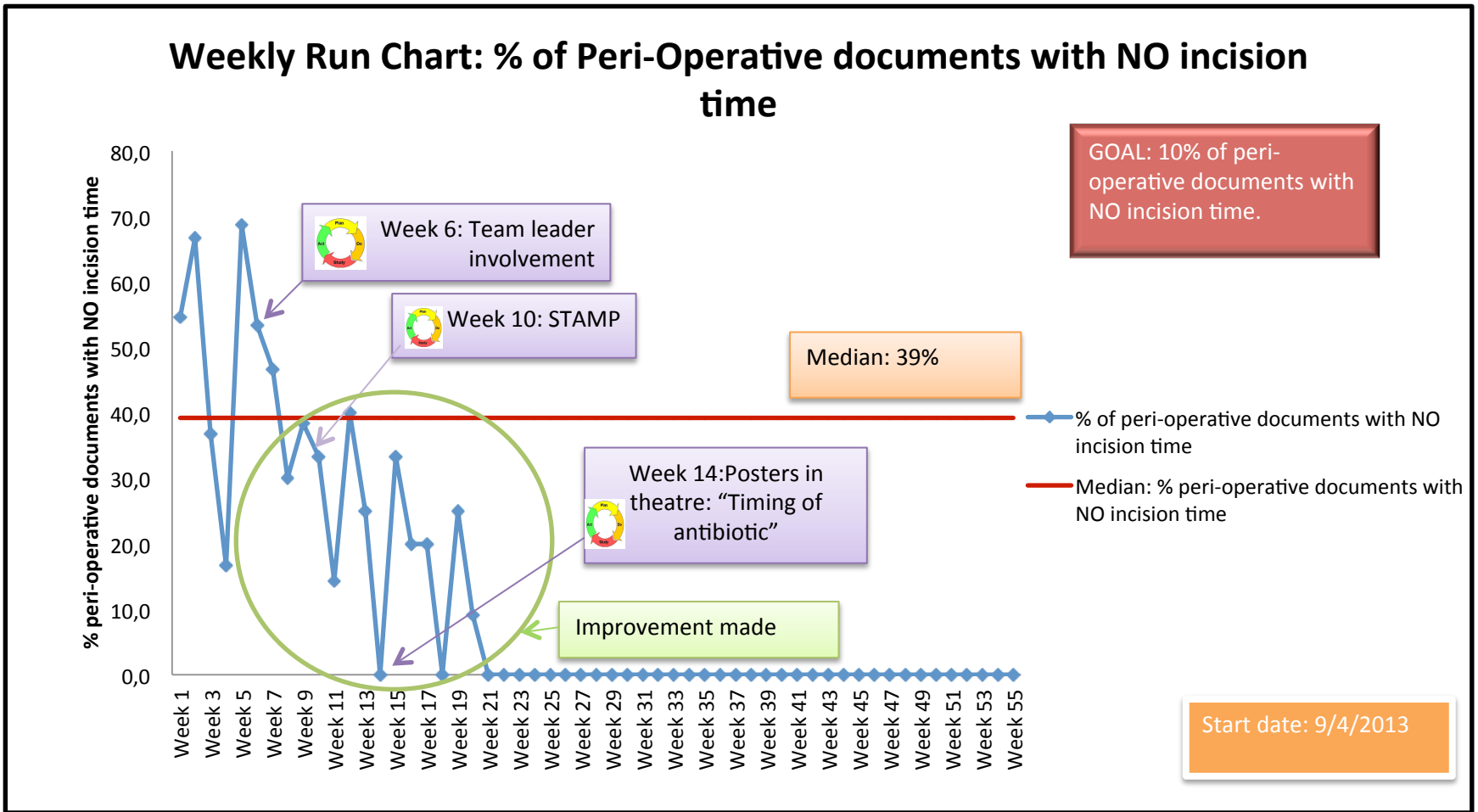


Prediction: Document completion will continue to be a challenge, making measuring difficult.
Some doctors will not comply and some will forget to request the anaesthetist to comply.

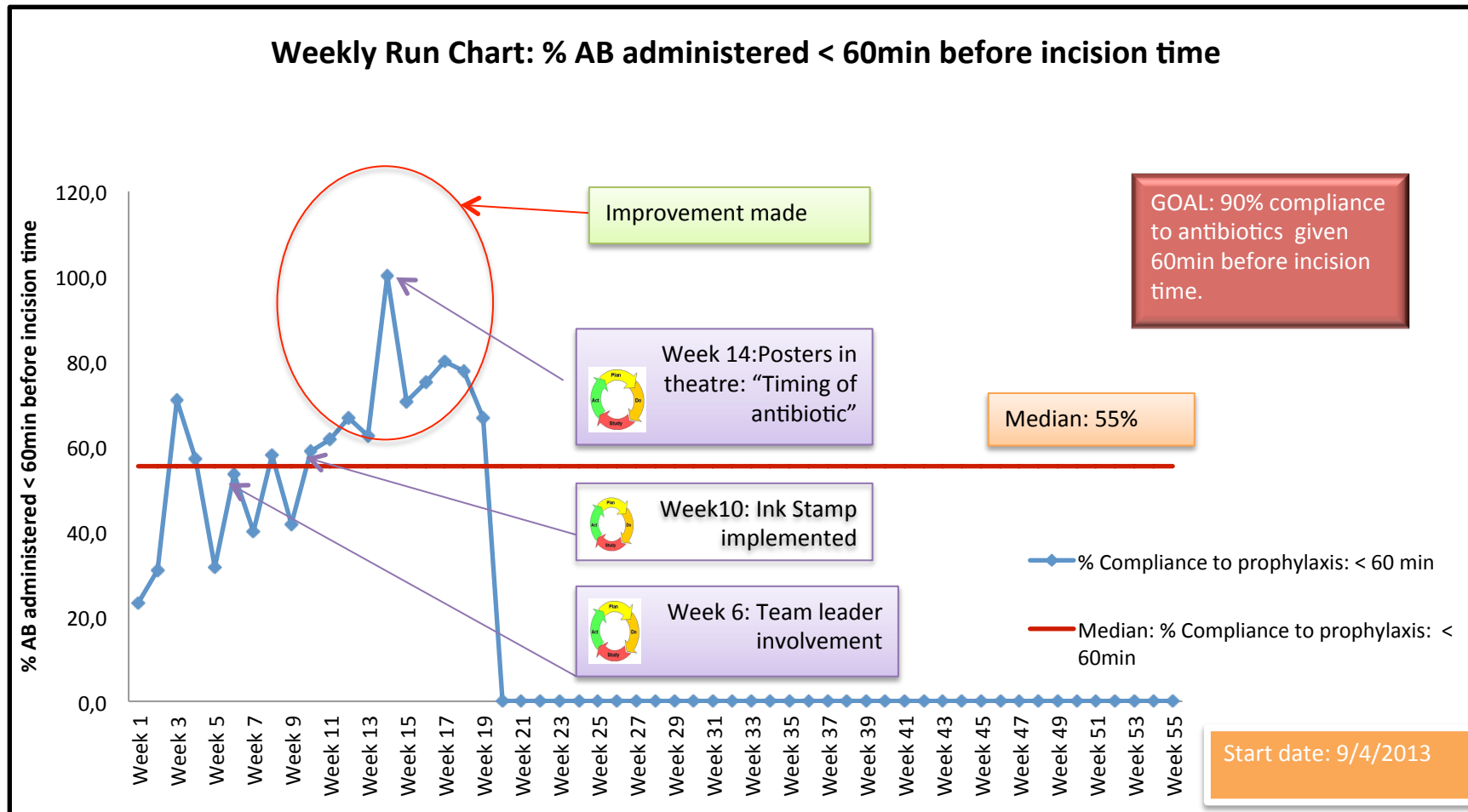
Quantifying Data

- Data was collected from the case notes of major (adult)surgical cases, to measure compliance to the four aspects of surgical antibiotic prophylaxis & distributed to each discipline so areas of non-compliance could be addressed.

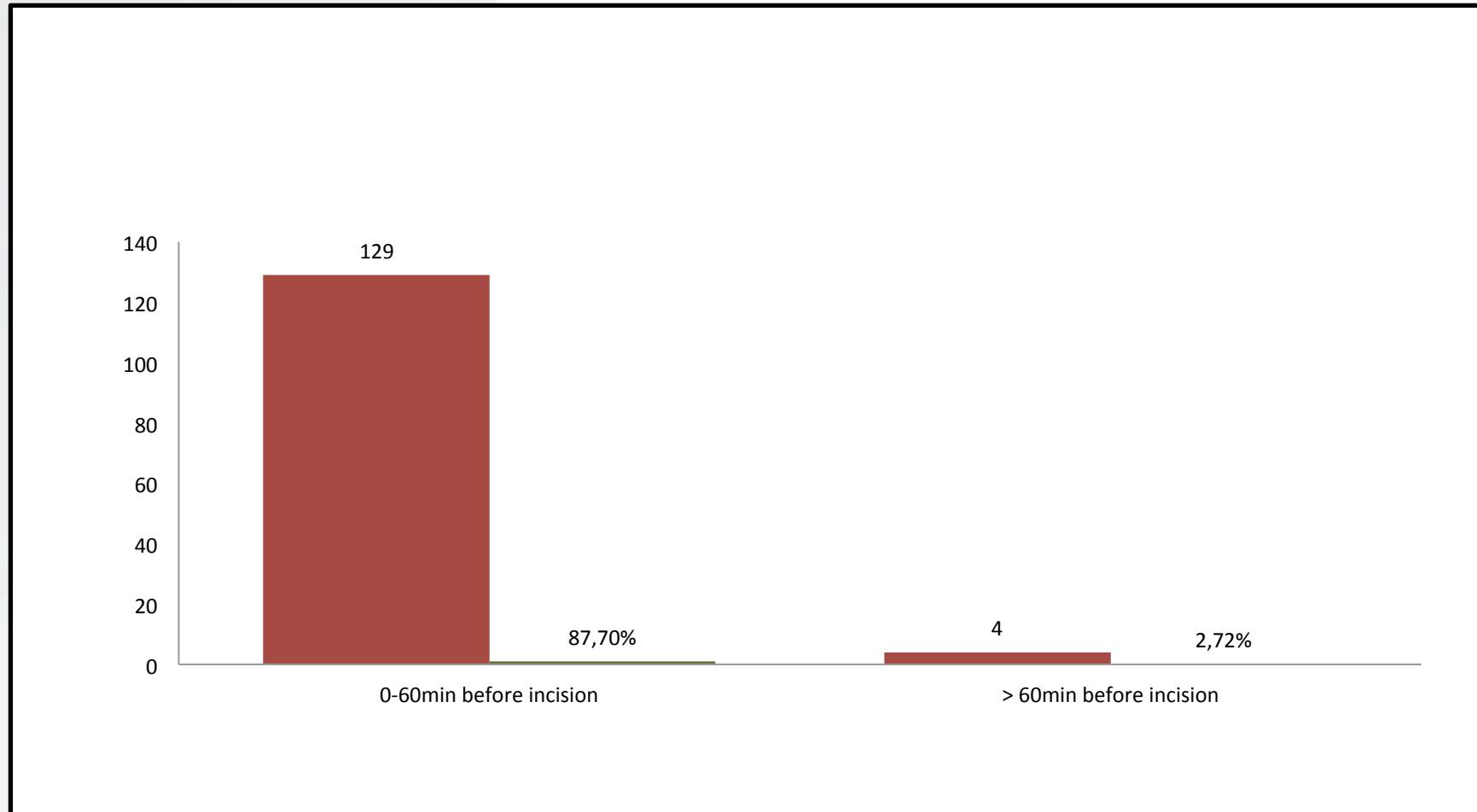
Percentage of Peri-operative documents with NO incision time recorded (9 April 2013 – 31 July 2013).



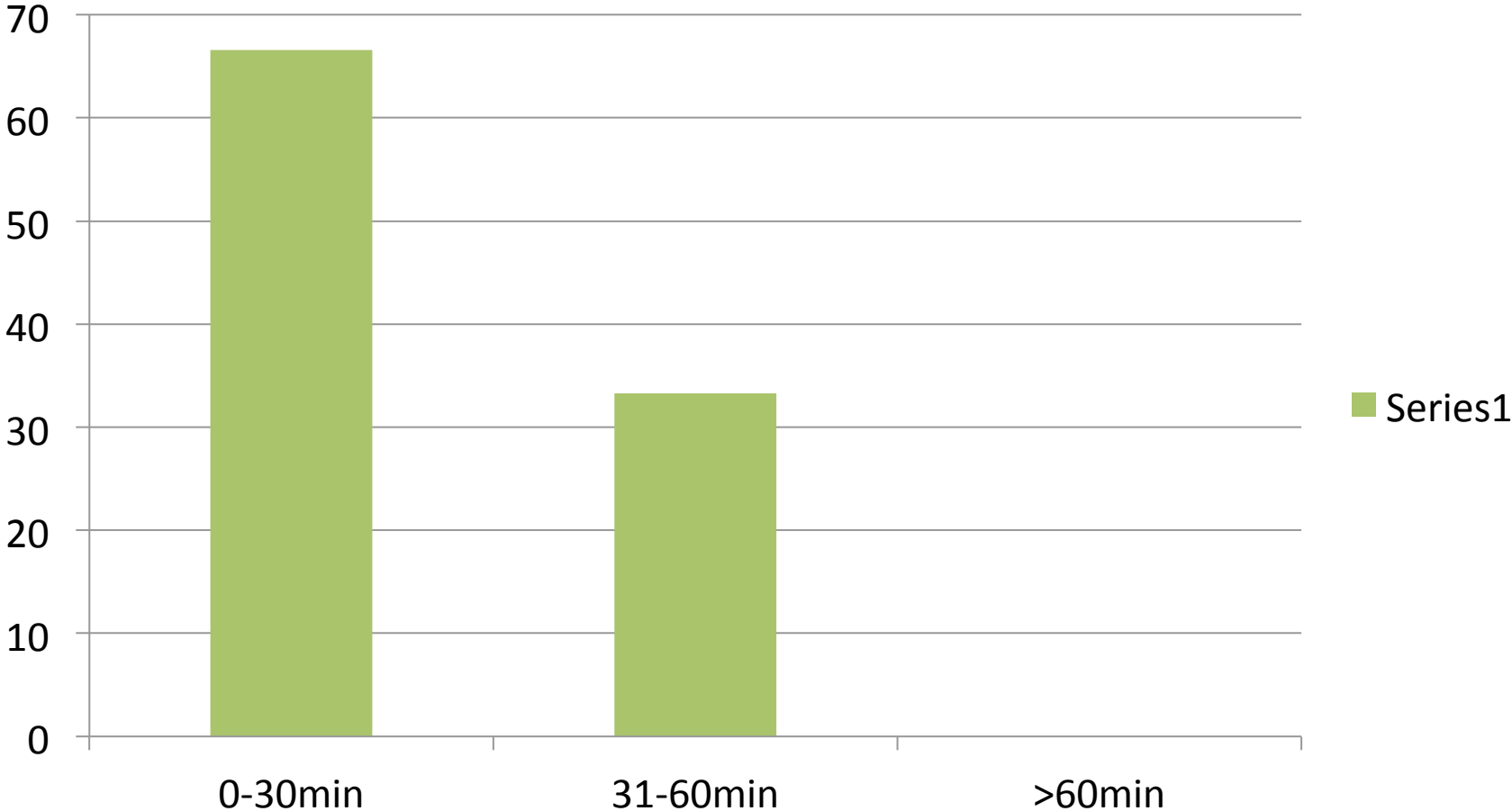
Percentage of antibiotics administered < 60min before incision (4 April – 31 July 2013).



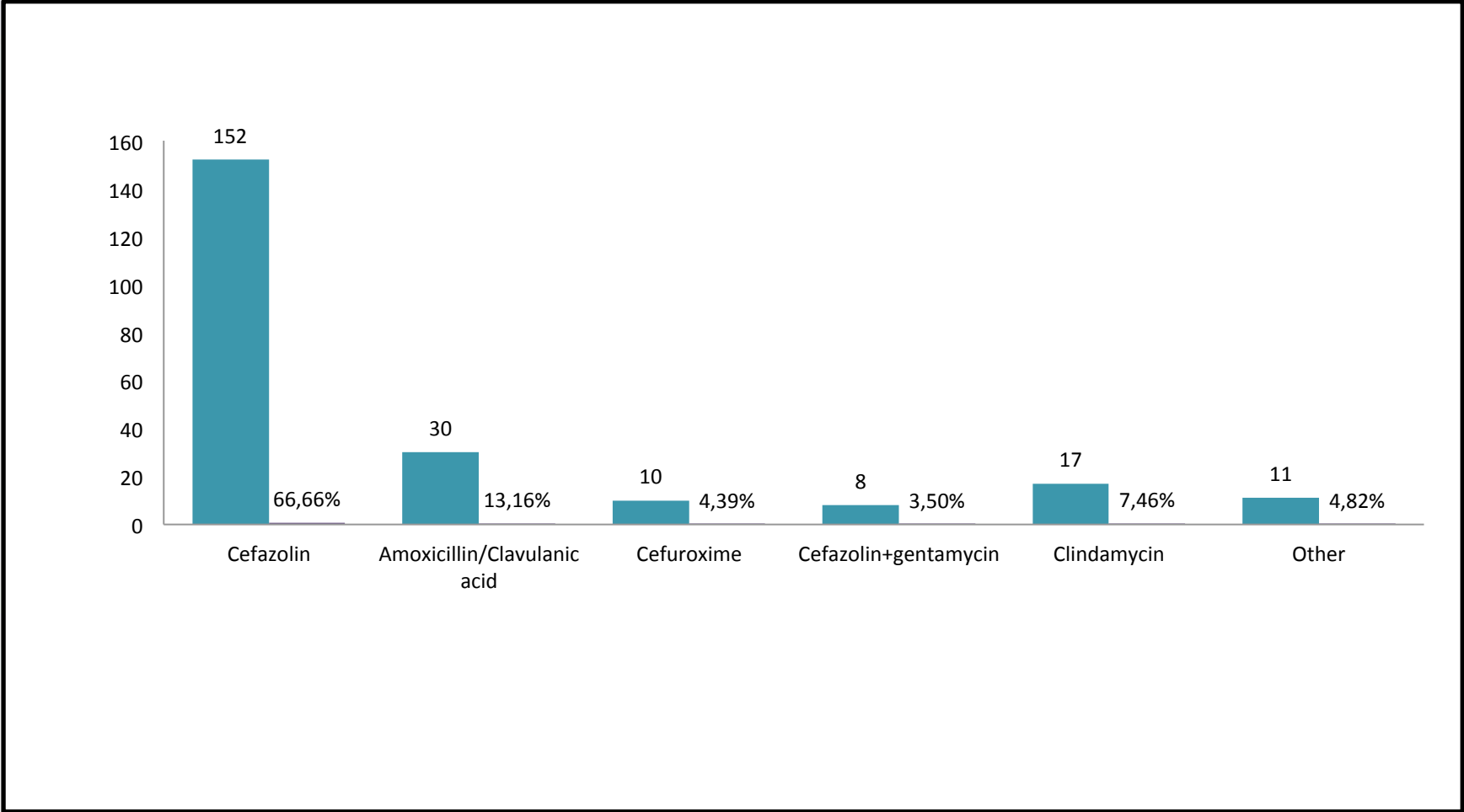
Percentage of antibiotics administered before incision (n=147). (9 April 2013 – 31 July 2013).



Percentage of antibiotics administered prior to incision *per discipline*

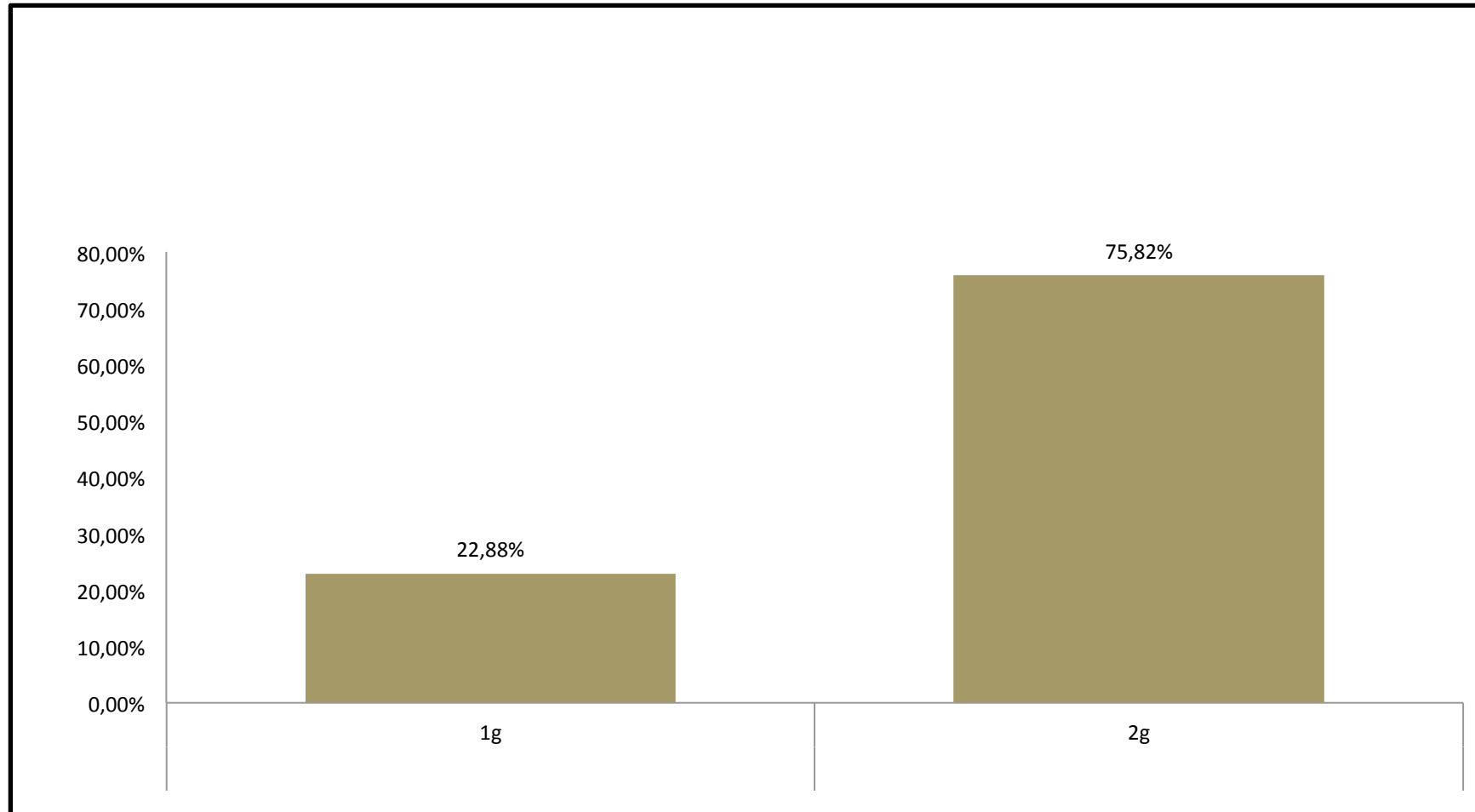


Antibiotic choices prescribed for surgical prophylaxis

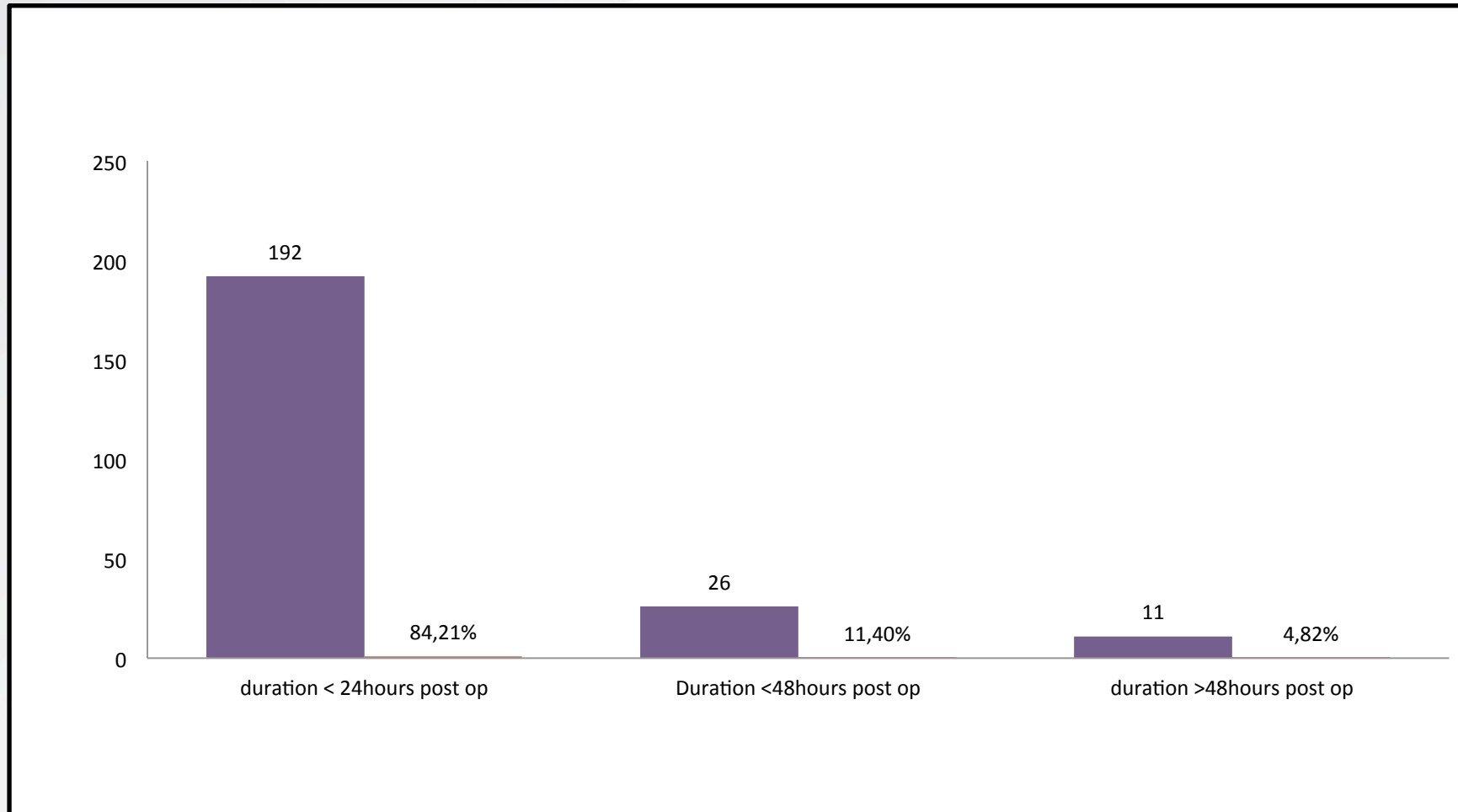


Dosage of cefazolin prescribed for surgical prophylaxis (n=152).

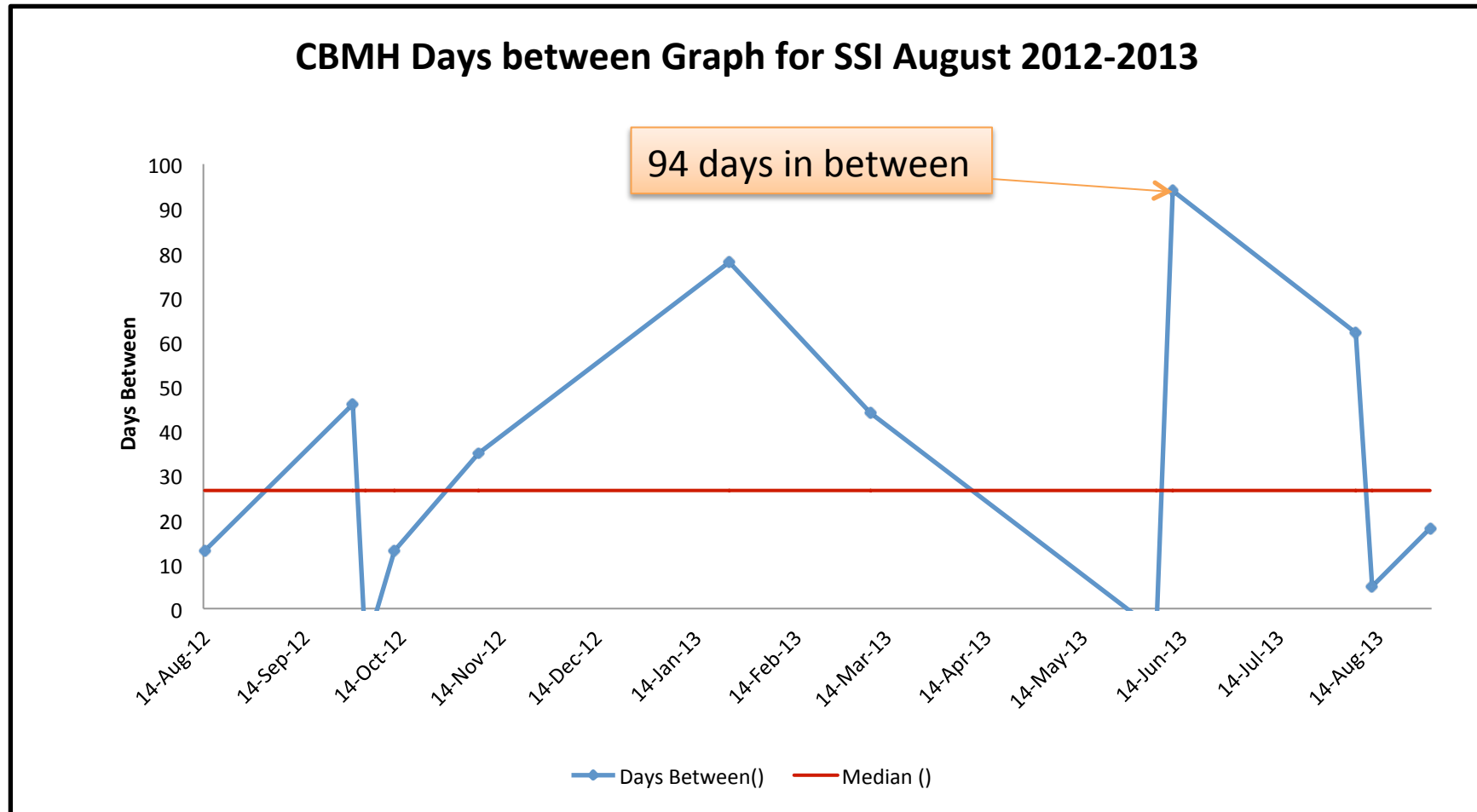
(9 April 2013 – 31 July 2013).



Percentage of Duration of Prophylaxis < 24 hours



Days between surgical site infections (94) (August 2012 - August 2013)



Message for those who wish to start a similar project!

- A project of this size can be daunting, be prepared to drive it relentlessly.
- Get surgeons, anaesthetists & guidelines (inc dosages) together at the beginning (if you haven't done so already)!
- Weekly huddles & regular formal meetings are essential.
- Publish information & results regularly on the theatre notice board & electronically distribute.

In Summary

We have laid the foundations of

'getting it right'!

but need to further drive improvements and ensure sustainability before we can say

'we have got it right'!



Thank You For Your Time!

No conflicts of interest to declare!

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