Central Manchester University Hospitals NHS
NHS Foundation Trust

NHFD – the Manchester Royal Infirmary experience

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Consultant Physician and Orthogeriatrician

The New Hospital Development

NHFD – The MRI experience
Introduction

- How we became involved
- Data collection
- Using the NHFD to improve quality of care for hip fracture patients and service development

Becoming involved

- December 2007 – contact with NHFD – how to join?
- January 2008 - Project Coordinator NHFD and colleague visited MRI to deliver presentation
- Attended by multidisciplinary team from MRI and representatives from PCT
- Meeting also attended by clinical and audit staff from local Trusts
- Discussion with Clinical Director Orthopaedics
- Registered February 2008

Data collection

- Passwords obtained and facilities audit completed
- Data input commenced March 2008
- Lead Clinician Dr Marie Hanley
- Principal data collectors:
- Margaret Russell Orthogeriatric Liaison Nurse and Marie Hanley
- Support from Julie Suman, Clinical Audit Facilitator and Trauma Nurse Co-ordinators

Data collection

- Data collected during admission whenever possible – mostly by Margaret
- Data inputted into NHFD at least twice weekly for patients aged 50 and over
- Validation of data input by clinical audit dept
- 30, 120 and 365 day follow up phone calls – positive comments received from patients
- Time consuming and challenging but rewarding

Data collection and analysis

- 313 complete records entered into NHFD
- 181 patients in last 12 months
- Initially emphasis on data collection and input
- Since April 2009 – local monthly analysis of time to theatre and production of exception report
- Results presented to local audit meetings

Using NHFD to improve quality of care and improve service for hip fracture patients

- Audit meeting January 2009
- Combined meeting between Orthopaedics, Anaesthetics and Orthogeriatrics
- Fracture NOF care and time to theatre
- Dr Foster report discussed – the Trust named with 4 other Trusts for lowest surgery rates for fracture NOF
- NHFD analysis – 55.5% operated within 48 hours
- Reasons for delay explored

Action plan

- Group established:
- Orthopaedic Consultants
- Anaesthetists
- Consultant Orthogeriatrician
- Divisional Managers Orthopaedics and Anaesthetics
- CMFT Guidelines produced for perioperative management of patients with fracture NOF

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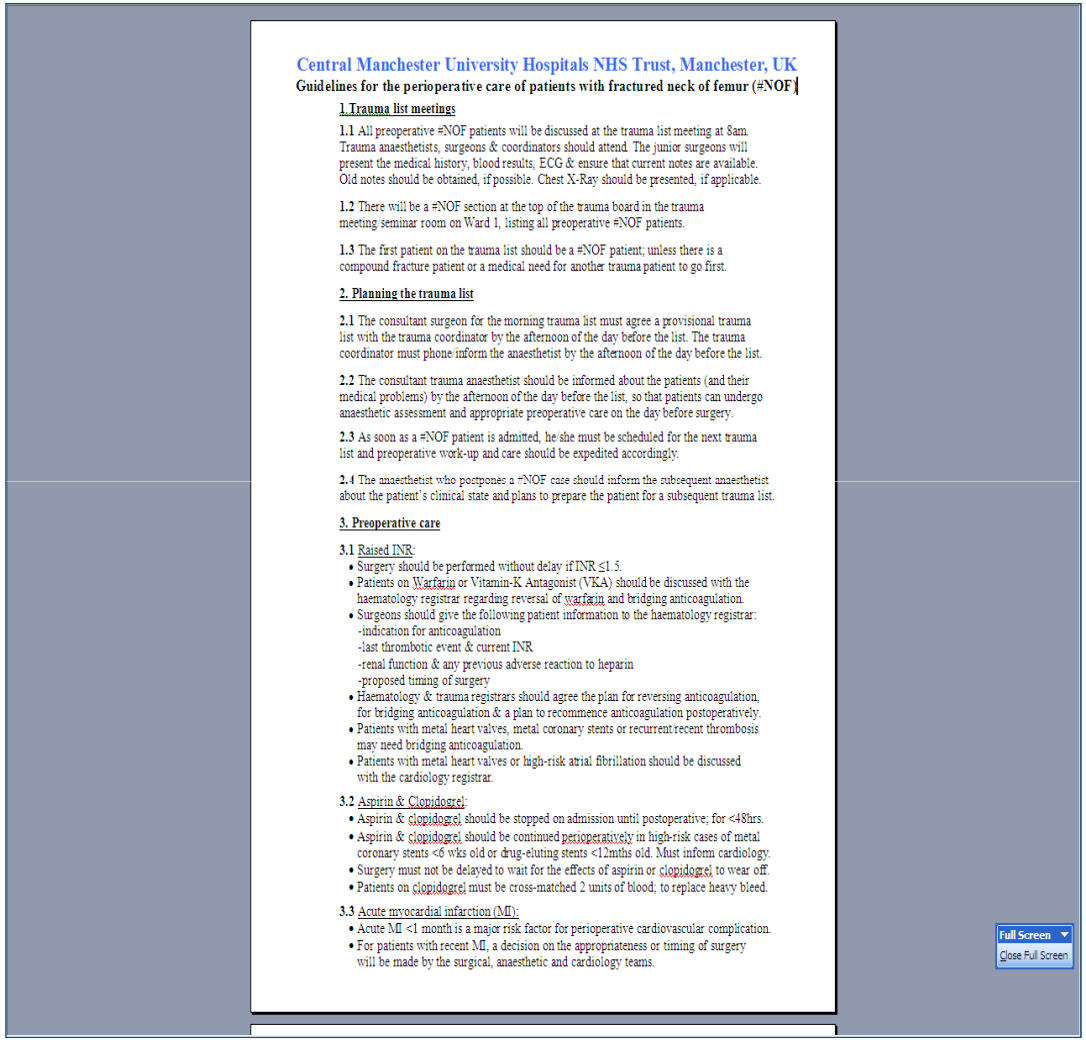
CMFT Fracture NOF Guidelines

- ❑Produced March 2009
- ❑Reviewed December 2009

- ❑Trauma list meetings
- ❑Planning of trauma list
- ❑Preoperative care
- ❑Intra-operative care
- ❑Postoperative care



Central Manchester University Hospitals NHS Trust, Manchester, UK

Guidelines for the perioperative care of patients with fractured neck of femur (#NOF)

1. Trauma list meetings

1.1 All preoperative #NOF patients will be discussed at the trauma list meeting at 8am. Trauma anaesthetists, surgeons & coordinators should attend. The junior surgeons will present the medical history, blood results, ECG & ensure that current notes are available. Old notes should be obtained, if possible. Chest X-Ray should be presented, if applicable.

1.2 There will be a #NOF section at the top of the trauma board in the trauma meeting/seminar room on Ward 1, listing all preoperative #NOF patients.

1.3 The first patient on the trauma list should be a #NOF patient; unless there is a compound fracture patient or a medical need for another trauma patient to go first.

2. Planning the trauma list

2.1 The consultant surgeon for the morning trauma list must agree a provisional trauma list with the trauma coordinator by the afternoon of the day before the list. The trauma coordinator must phone/inform the anaesthetist by the afternoon of the day before the list.

2.2 The consultant trauma anaesthetist should be informed about the patients (and their medical problems) by the afternoon of the day before the list, so that patients can undergo anaesthetic assessment and appropriate preoperative care on the day before surgery.

2.3 As soon as a #NOF patient is admitted, he/she must be scheduled for the next trauma list and preoperative work-up and care should be expedited accordingly.

2.4 The anaesthetist who postpones a #NOF case should inform the subsequent anaesthetist about the patient's clinical state and plans to prepare the patient for a subsequent trauma list.

3. Preoperative care

3.1 Raised INR:
- Surgery should be performed without delay if INR ≤1.5.
- Patients on Warfarin or Vitamin-K Antagonist (VKA) should be discussed with the haematology registrar regarding reversal of warfarin and bridging anticoagulation.
- Surgeons should give the following patient information to the haematology registrar:
  -indication for anticoagulation
  -last thrombotic event & current INR
  -renal function & any previous adverse reaction to heparin
  -proposed timing of surgery
- Haematology & trauma registrars should agree the plan for reversing anticoagulation, for bridging anticoagulation & a plan to recommence anticoagulation postoperatively.
- Patients with metal heart valves, metal coronary stents or recurrent/recent thrombosis may need bridging anticoagulation.
- Patients with metal heart valves or high-risk atrial fibrillation should be discussed with the cardiology registrar.

3.2 Aspirin & Clopidogrel:
- Aspirin & clopidogrel should be stopped on admission until postoperative; for <48hrs.
- Aspirin & clopidogrel should be continued perioperatively in high-risk cases of metal coronary stents <6 wks old or drug-eluting stents <12mths old. Must inform cardiology.
- Surgery must not be delayed to wait for the effects of aspirin or clopidogrel to wear off.
- Patients on clopidogrel must be cross-matched 2 units of blood; to replace heavy bleed.

3.3 Acute myocardial infarction (MI):
- Acute MI <1 month is a major risk factor for perioperative cardiovascular complication.
- For patients with recent MI, a decision on the appropriateness or timing of surgery will be made by the surgical, anaesthetic and cardiology teams.

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CMFT Guidelines

- Trauma meetings and planning of trauma list
- Preoperative care
  - Raised INR
  - Aspirin and Clopidogrel
  - Preoperative Echocardiogram
  - Electrolyte abnormalities
  - Anaemia
  - Acute Myocardial infarction and Acute Stroke
  - Chest Infection
  - Preoperative medication and analgesia

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CMFT Guidelines

- Intra-operative care
  - Regional anaesthesia
  - General anaesthesia
- Post-operative care
  - Monitoring
  - Care
  - Analgesia

Orthogeriatric Service 2009

- 1 Consultant Orthogeriatrician 2.375 sessions
- 1 full time Orthogeriatric Liaison Nurse
- 1 session Specialist Registrar in Geriatrics and General Medicine
- Routine review of NOF patients post operatively, falls and bone health assessments
- Review of other trauma and elective patients as required
- Multidisciplinary meetings and discharge planning

Orthogeriatric Service Jan 2010

- 1 Consultant Orthogeriatrician 3.375 sessions
- Attendance at Trauma meetings 4 days per week
- Preoperative review of fracture NOF patients
- Monthly reports time to theatre and exception report

- Issues – Part time Orthogeriatrician and no cover for leave

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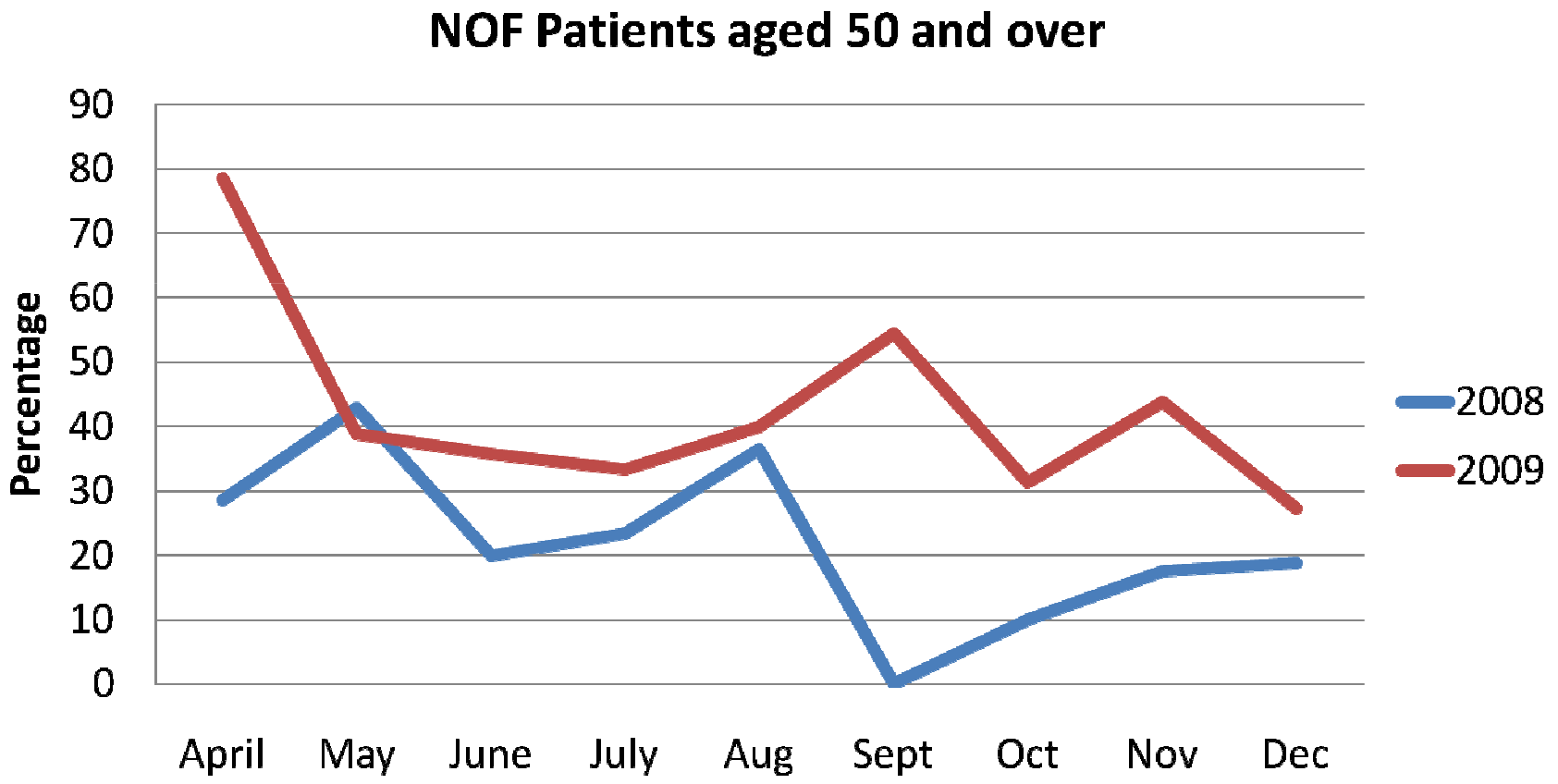
NOF patients operated within 24 hours
Comparison of 2008 and 2009



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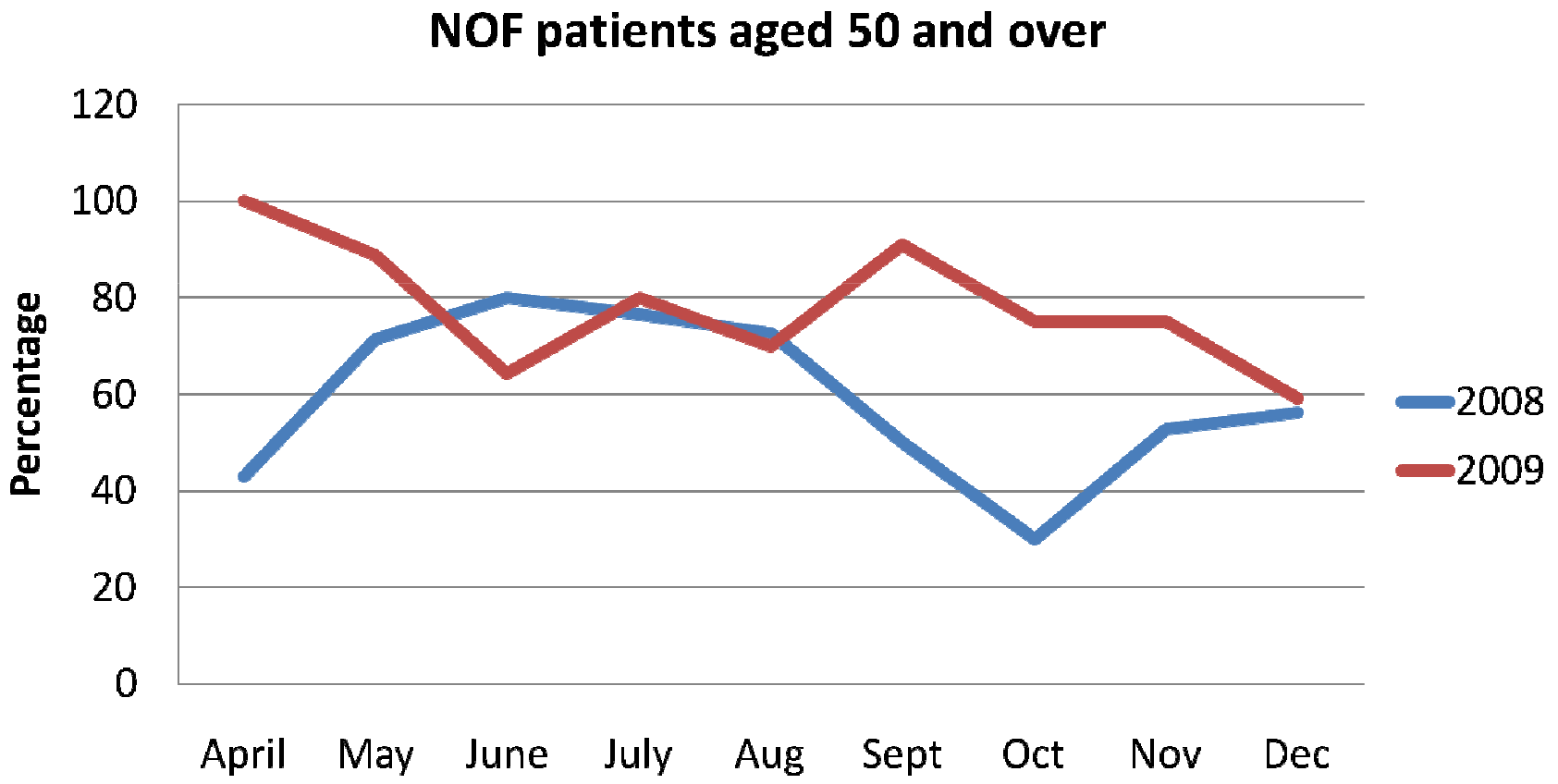
NOF patients operated within 48 hours
Comparison of 2008 and 2009



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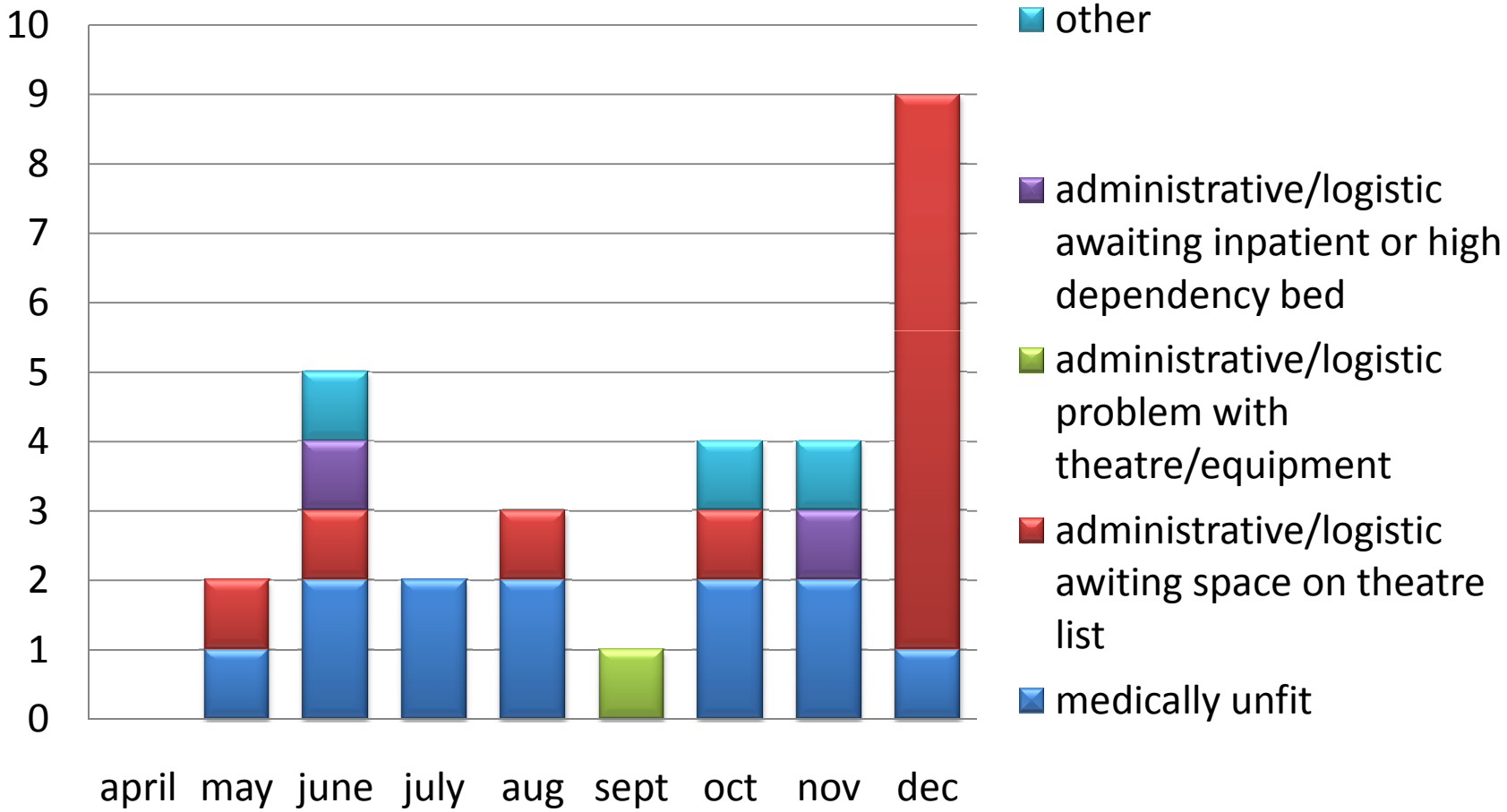
Reasons for delay to theatre over 48 hours



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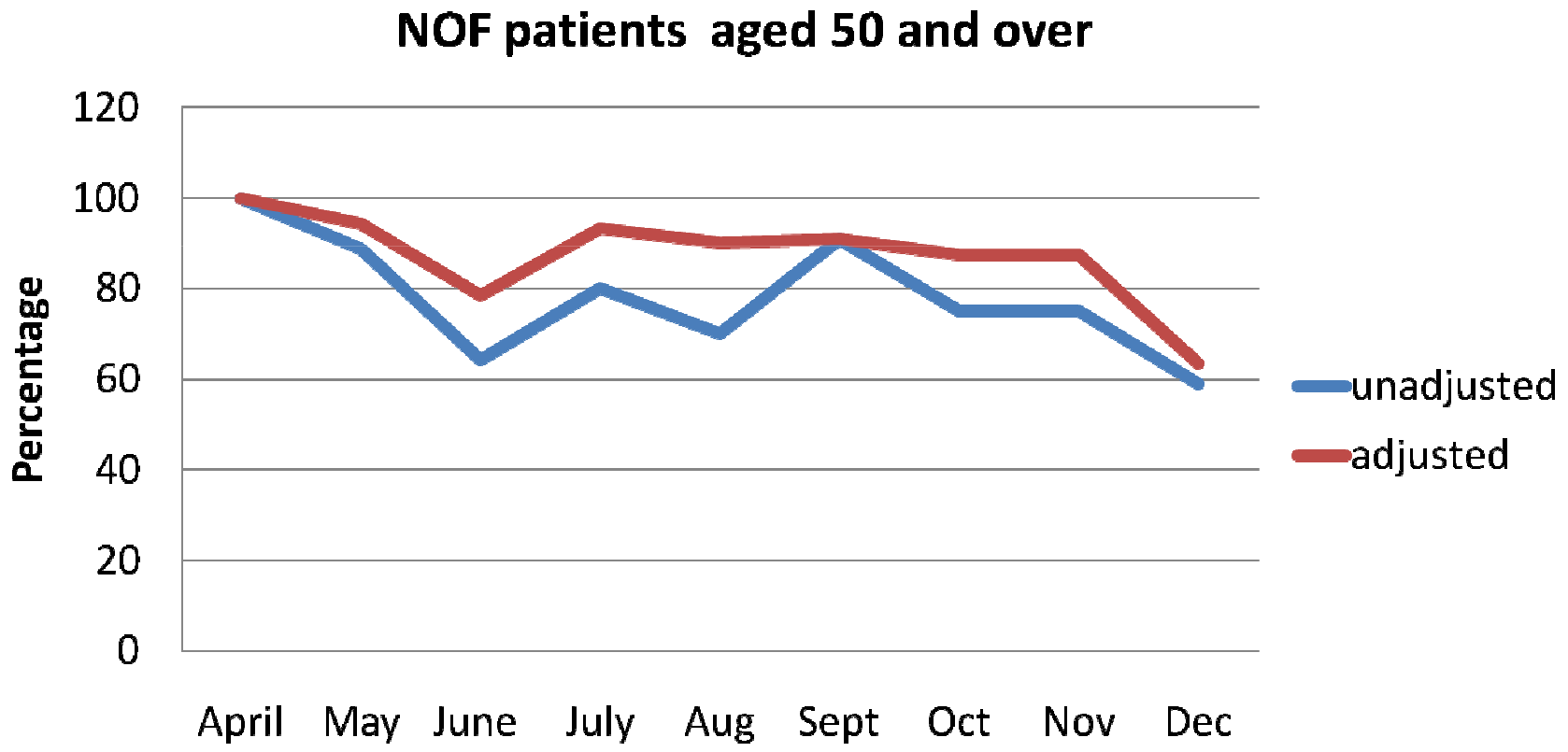
NOF patients operated within 48 hours in 2009
Adjusted and unadjusted for medical fitness to theatre



Summary and challenges ahead

- Improvements in time to theatre but..... further improvement required
- Adherence to guidelines for perioperative care requires monitoring and audit
- Continue to monitor time to theatre and preoperative assessments
- Need to monitor length of stay, falls and bone health assessments

Summary and challenges

- Participation in NHFD has enabled us to:
- Improve quality of care
- Enhance service development
- Monitor performance over time

- Challenge – Best Practice Tariff

- Thank you

- Any questions?

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