SCTS Board of Representatives
GIRFT Recommendation

Ensure Every Patient is Reviewed by a Consultant 7 Days a Week

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GIRFT Recommendation

Patient pathways and bed management

1. Make day of surgery admission routine practice.
2. Ring-fence beds on ward and ITU for elective cardiothoracic surgery.
3. Establish regional work-up protocols for non-elective referrals.
4. Pool non-elective cases ready for next available theatre session and next available appropriate surgeon.
5. Ensure that every patient is reviewed by a consultant pre- and post-operatively – and that this happens seven days a week.
FOR

Best quality of care for complex patients

Confidence in decision making – patients and staff

Reduce variability/changes in plan

Discharge decisions and planning by Consultant

Detection of complications

Availability – Consultant visible every day

Handover to on call

Opportunity for education
AGAINST

Does it make a difference?

Mundane and boring aspect of work

*If there is a ward rota:*

- Loss of Patient-Consultant relationship/Impersonal
- Consultant preferences may cause friction
- Training
- Time/Job planning/Cost
- Other roles when on ward cover?
Newcastle Experience I

• Individual Consultants saw their own patients - intermittent, variable practice/management, Registrar delegation when absent (may not know case, confusion, seniority)

• Trainees often reluctant to make discharge decisions when Consultant absent

• More pronounced out of hours and weekends – Registrar ward rounds with Consultant advice/input when needed.

• Lengthening in patient stay in both cardiac and thoracic surgery

There was wide variation in the weekend discharge rate - from 15.3% to 34.1%. The consultant ward round is a powerful determinant of weekend discharges. Similarly, a lack of seven-day pharmacy services means that patients who improve throughout a weekend and become fit for discharge may be held on wards until the following Monday.
Newcastle Experience II

• Commitment to high quality of care extends beyond the theatre and clinic to the ward

• **Weekend Consultant led ward rounds – 2017**
  • *Thoracic Consultant sees every thoracic patient*
  • *Cardiac Consultant sees every cardiac patient*
  • *With On Call Registrar, Nurse Practitioner and Ward Sister*
  • *Access to handover sheet, computer and patient notes*

• Very successful in identifying issues and treating complications quickly, making timely decisions (eg drains), and discharge decision making

• Patients soon got better care at weekends than weekdays so extended to 7 days a week

• Ward Consultant weekly roster
NEED FOR CONSISTENCY AND UNIFORMITY

- Ward protocols

- Covers every aspect of managing cardiac and thoracic patients

- Agreed by every surgeon – no arguments over how their patient is managed

- Default way to treat everything

- Maintains Consultant autonomy over decision making outside of this – not restrictive so deviations permitted when individual patient circumstances dictate

- Revised according to evidence base each January

- Feedback from staff
### Antplatelet therapy

All CABG patients (or patients receiving grafts in addition to another procedure) to receive 75mg Aspirin at 6 hours post op on ITU if chest drainage less than 100mls in previous hour.

Continue Aspirin 75mg daily for a minimum of one year unless demonstrated intolerance. Consider Clopidogrel if patient is on this preoperatively.

Clopidogrel may be needed if the patient has coronary stents in situ. Drug eluting stents should have Aspirin and Clopidogrel for one year after implantation while bare metal stents receive the combination for one month only before continuing on Aspirin alone.

In stable coronary heart disease patients treated with CABG there is insufficient data to recommend dual antplatelet therapy (DAPT) in this patient population.

In urgent in house acute coronary syndrome patients (ACS) irrespective of the final revascularization strategy (e.g. medical therapy, PCI, or CABG), DAPT should be started in the form of 75mg Aspirin and 75mg Clopidogrel for a duration of 12 months. Six-month therapy duration should be considered in high bleeding risk patients, whereas >12-month therapy may be considered in ACS patients who have tolerated

For patients who also require Warfarin or Rivaroxaban the addition of DAPT results in at least a two- to three-fold increase in bleeding complications. Therefore, these patients should have their regime decided upon by a Consultant.

CABG patients who are Warfarinised or on another oral anticoagulant (e.g. for valve/AF/thrombus/endarterectomy) to receive 75mg Aspirin only.

### Cardiac patients

Pre-operative beta blockers and statins should be continued through the perioperative period unless there is a contraindication. Start half dose beta blocker on POD1 and increase to normal dose as tolerated. Consider overdrive atrial pacing in high risk patients.

Confirm AF with 12-lead ECG.

Sinus tachycardia (>100pm) may indicate a clinical problem and this should be sought rather than treating this as an arrhythmia.

What appears to be a sinus tachycardia >150pm may well be atrial flutter and will need control as for AF.

Check potassium

If potassium and hydration satisfactory, and patient not hypoxic:

Give 8mmol Magnesium Sulphate IV. Prophylactic magnesium supplements can be considered in high risk patients such as aortic stenosis and poor LV function.

**Options:** SEEK SENIOR ADVICE IF UNCERTAIN.

1. If significantly compromised consider synchronised DC cardioversion. The cardioversion may be repeated following administration of antiarrhythmic medication and correction of hypokalaemia.
# Management of Diabetes Protocols

## Care of Patients with Diabetes

### Transfer to Ward

**Eating and drinking normally**
- Re-start diabetes medications at their usual times, once the patient is able to eat at least a sandwich or equivalent. Doses must be reviewed with the patient.
- Metformin: Avoid for 24 hours after radiological contrast or if eGFR < 50 or creatinine > 150mmol/l.
- Continuous insulin s/c pump – continue basal rate, add boluses with meals as usual.
- Check blood glucose every 4 hours minimum, increasing if outside range.
- Continue any GKI until 1 hour after eating + diabetic medications restarted.

### Eating and drinking, but less than usual

Re-start reduced diabetes medications as below, at their usual times, once the patient is able to eat at least a slice of toast or equivalent. Verify usual doses with the patient.
- Sulphonylureas (gliclazide/gliclazide MR, glimepiride) – Halve usual dose until full diet
- Metformin – Avoid until eating normally and avoid for 24 hours after radiological contrast or if eGFR < 50 or creatinine > 150mmol/l.
- GLP1 analogues – Usual dose can be given.
- Long-acting s/c insulin (Insulatard, Humulin I, Glargine, Detemir) – 80% of usual dose.
- Continuous insulin s/c pump – Continue basal rate; reduce boluses until eating normally.
- Other s/c insulin – Halve usual dose and then adjust as required.
- Check blood glucose every 2 hours minimum, increasing if blood glucose outside range.
- Continue any GKI until 1 hour after eating + diabetes medications restarted.

### Unable to eat, tablet or GLP1 analogue treated diabetes

- Omit these medicines until the patient can eat and drink. GKI may be required.
- Check blood glucose every 2 hours minimum, increasing if blood glucose outside range.

### Unable to eat, insulin controlled diabetes (or insulin + tablet)

- Omit diabetes tablets until the patient is able to eat and drink.
- Long-acting s/c insulin (Insulatard, Humulin I, Glargine, Detemir) should be continued at usual dose alongside a GKI. GKI is required until the patient is able to eat.
- Continuous s/c insulin pump should be stopped and GKI used.
- Check blood glucose as per GKI protocol.
- Patients with diabetes who are receiving parenteral or NG nutrition will require the input of the diabetic specialist team when discontinuing the GKI; contact via switchboard.

## GKI

GKI: 80 ml/hr 500ml 10% glucose + …..mmol potassium (KCl) + Actrapid…… Units (16 standard)

10mmol standard & maximum
Use 12 units if patient received long acting insulin
Omit potassium in renal failure
Use 10 units if renal failure or known insulin sensitivity

**NOTE:** Baseline LONG-ACTING S/C INSULIN, continue at USUAL DOSE (Insulatard, Humulin I, Glargine, Detemir) whilst on GKI

### Check blood glucose hourly or sooner if patient has symptoms of hypoglycaemia

**Blood glucose below 4.0**
- 2 units Actrapid & give 200ml 10% glucose
- Recheck blood glucose every 15 minutes
- When blood glucose above 4 re-start GKI with 4 units less Actrapid (change bag)

**Blood glucose 4.1 - 6**
- Reduce Actrapid by 4 units after 1 blood glucose reading in this range (change bag)

**Target blood glucose 6.1 – 10**
- Continue current GKI dosing
- Consider 2-hourly blood glucose testing if within target for 2 consecutive readings

**Blood glucose 10.1 – 13**
- Increase Actrapid by 4 units after two consecutive hourly readings in this range (change bag)
How it works

• Ward Consultant sees every ward patient each day Monday to Thursday
• 1 in 5/7, No theatre lists
• Weekend on call Surgeon sees patients Friday to Sunday
• Thoracics – 8am, Cardiac 9.30am
• Available until 5pm then hand over to the on call Surgeon

• Continuity of care and decision making
• Recognition of deterioration, follow up of investigations, response to treatment

• Patients own Consultant can still see the patient and their opinion takes primacy

• Differences of opinion minimized by agreed protocol
A Consultant Thoracic Surgeon and Cardiac Surgeon (Ward Surgeon on the on call rota) will see every patient on the ward each morning. They will then be available for queries and updates on patients through the day. At 5pm responsibility for ward cases passes to the on call Consultant Surgeon.

The patients own surgeon may also visit. The responsible surgeons decisions will always take precedent either before or after the Ward Round. Where there are differences of opinion the Consultants will discuss this between them and come to an agreed position which will be then communicated to the ward team.
The Directorate is committed to providing high quality and prompt care every day of the week to emergency cases newly admitted under cardiac/thoracic surgery and paediatric cardiothoracic surgery.

This commitment includes the timely and thorough evaluation and assessment of new admissions by Consultant Cardiothoracic Surgeons and the formulation of a detailed management plan which is communicated to the patient.

Non-elective admissions may be classified as 1) Emergency or 2) Urgent

- All emergency admissions will be seen by a Consultant within 14 hours of their admission to the Directorate.

- All urgent admissions will be seen by a Consultant within 24 hours of admission.

All admissions (emergency and urgent) will be evaluated by a Specialist Registrar within 90 minutes of arrival and the Consultant advised of their status by telephone when necessary to decide and agree upon an immediate management strategy.

Patients who are considered to be at high risk (where death or serious harm is likely to occur within 14 hours) will be seen within 1 hour of notification by a Consultant.
### CARDIAC SURGERY – NEW ADMISSIONS

<table>
<thead>
<tr>
<th><strong>EMERGENCY</strong></th>
<th><strong>URGENT</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>See within 14 hours</td>
<td>See within 24 hours</td>
</tr>
<tr>
<td>Trauma</td>
<td>VAD related complications</td>
</tr>
<tr>
<td>Post infarct VSD</td>
<td>Inter hospital transfers for planned in house surgery</td>
</tr>
<tr>
<td>Aortic dissection</td>
<td>Post operative re-admissions – not requiring ITU/HDU</td>
</tr>
<tr>
<td>Post operative re-admissions – requiring ITU/HDU</td>
<td>Post operative re-admissions – not requiring ITU/HDU</td>
</tr>
<tr>
<td>Acute ischaemic mitral regurgitation</td>
<td>Stable Infective endocarditis</td>
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<tr>
<td>Infective endocarditis with haemodynamic instability</td>
<td></td>
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<tr>
<td>Catheter laboratory complications referred by the Cardiologist</td>
<td></td>
</tr>
<tr>
<td>Cardiac tamponade</td>
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</tbody>
</table>

Recipients for cardiopulmonary transplantation are on a waiting list and may be admitted for their planned and expected procedure out of hours. They cannot be strictly defined as an emergency case and timing of admission and the transplant is highly variable and subject to change. In these cases, if the transplant is to go ahead the patient will always be reviewed by a Consultant prior to surgery taking place. Recipients will always be seen on arrival by the Transplant Registrar and Transplant Co-ordinator. If Consultant involvement is required in terms of a change in management plan then the Consultant will be specifically advised of this.

### THORACIC SURGERY – NEW ADMISSIONS

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<tr>
<th><strong>EMERGENCY</strong></th>
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<tbody>
<tr>
<td>See within 14 hours</td>
<td>See within 24 hours</td>
</tr>
<tr>
<td>Stridor</td>
<td>Trauma - stable</td>
</tr>
<tr>
<td>Empyema with systemic sepsis</td>
<td></td>
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<tr>
<td>Trauma with cardiorespiratory instability</td>
<td></td>
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<tr>
<td>Post operative re-admission – requiring HDU/ITU</td>
<td>Post operative re-admissions – not requiring ITU/HDU</td>
</tr>
<tr>
<td>Massive haemoptysis</td>
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Other duties that week

• Extra out patient clinics
• 2\textsuperscript{nd} Consultant surgeon for difficult cases – helping colleagues/ 2 transplants etc
• Managing new in patient transfers – admitted under ward Consultants name so seen straight away then allocated for surgery
• Waiting list office queries
• Cath lab consultations/ad hoc MDTs

• Availability for all MDTs
• Educational Supervision
• Research, Teaching
• CPD
• Mandatory training, Appraisal
Job Planning Implications

Ward Cover, rounds and related duties

1 week in 7.
2 hours ward round = 0.5PA/6 = **0.1PA/week**
Own ward rounds/pre-op patient visits/consent/post op care/post op issues = 4 hours/wk. **1.0 PA/wk**
Weekend ward rounds (Sat/Sun) at 1PA = 3 hours as out of hours = **0.5PA**

With regard to weekend ward rounds: An 8 hour ward round (Saturday and Sunday) at a weekend is 2.6PA (1PA is 3 hours out of hours). Let’s say we do 8 weekends on call each per year for the sake of argument. 8 x 8 hours is 64 hours of weekend ward rounds each per year (excluding the time doing transplant/VAD rounds which are separate). That’s 21PA per year. Over your 43 weeks that you are individually here that’s 21/43 = **0.5PA per week per surgeon**

**TOTAL = 1.6PA**
Has it made a difference?

<table>
<thead>
<tr>
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<th>Jan-Dec 2014</th>
<th>Jan-Dec 2017</th>
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<tbody>
<tr>
<td>Number of ITU readmissions from the ward</td>
<td>4.4%</td>
<td>2.8%</td>
</tr>
<tr>
<td>Average post-operative stay in days</td>
<td>11 days</td>
<td>9 days</td>
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Future

• Afternoon Board round
• MDT for long stay patients
• Formal teaching rounds

Rapid Improvement Guide to:

The SAFER Patient Flow Bundle

Introduction

SAFER is a practical tool to reduce delays for patients in adult inpatient wards (excluding maternity).

The SAFER bundle blends five elements of best practice. It's important to implement all five elements together to achieve cumulative benefits. It works particularly well when it is used in conjunction with the 'Red and Green Days' approach. When followed consistently, length of stay reduces and patient flow and safety improves.

The SAFER patient flow bundle

S - Senior Review. All patients will have a senior review before midday by a clinician able to make management and discharge decisions.

A - All patients will have an Expected Discharge Date (EDD) and Clinical Criteria for Discharge (CCD), set by assuming ideal recovery and assuming no unnecessary waiting.

F - Flow of patients to commence at the earliest opportunity from assessment units to inpatient wards. Wards routinely receiving patients from assessment units will ensure the first patient arrives on the ward by 10am.

E - Early discharge. 33% of patients will be discharged from base inpatient wards before midday.

R - Review. A systematic multi-disciplinary team (MDT) review of patients with extended lengths of stay (>7 days – also known as ‘stranded patients’) with a clear ‘home first’ mind set.

S - Senior Review. All patients should have a senior review before midday.

Use simple rules to standardise ward and board round processes.

Minimise variation between individual clinicians and clinical teams to ensure all patients receive an effective daily senior review.

Daily review undertaken by a senior clinician able to make management and discharge decisions is essential seven days a week.

Effective ward and board rounds are crucial to decision making and care co-ordination.

Ward rounds - should add value, leading to clear actions, written up in notes and acted upon. A detailed description of ward round best practice is contained in the RCP/RCN document here.

Use check lists to reduce variation and prevent actions being omitted.

Always include a qualified nurse, other members of the MDT and involve the patient.

Use a ‘consultant of many days’, to lead on the management of ward patients. Let specialty colleagues focus on elective and other activities.

Most tasks (e.g. the writing up of TTOs or the ordering of a scan) to be completed before the round moves onto the next patient to avoid overloading junior staff, batching tasks and creating delays, with a mobile computer as an enabler.
Conclusions

- Improved trust and teamwork between colleagues
- Consistency
- High quality and safety
- Availability of senior decision making makes accessibility improved for juniors, NPs and nurses
- Contemporary practice through yearly revision of agreed protocols
- Patients come to know the Ward Consultant – trust, personalized service, individualized care
- Leadership
- Communication