

### WELCOME TO 3F - SHDU / PACU

3F is a 12-bedded Surgical High Dependency Unit (HDU) and Post Anaesthesia Care Unit (PACU) located on the third floor (directly below 4F). Staffing is covered by:

- Consultants: a mix of Critical Care and Anaesthetic consultants
- Trainees: from the ACCU trainee rotas
- Nurses: a combination of up-skilled surgical ward nurses and ACCU nurses

Patients are admitted following elective surgery if they are deemed to be high risk or require closer post-op monitoring. Most have been seen pre-op in the High Risk Anaesthetic Assessment (HRA) clinic and may also have been seen by Trauma and Peri-operative Older Persons' Service (TPOPS)

Admissions are arranged on an elective basis (pre-op). Occasionally patients are referred on the day of surgery - these referrals MUST be through the consultant on call.

3F is 'green' i.e. all patients should have had a negative covid PCR 2 days pre-op and this is repeated on the day of surgery along with a Lateral Flow Test. If referred on the day they must be admitted to a side room until a negative PCR returns. The unit does not take patients undergoing emergency surgery.

The ward generally has a high turnover of up to 8 admissions a day and acuity can range widely, with the propensity for some patients to get quite sick quite quickly.

Most patients will stay, on average, a few nights' stay (rarely more than a week) before being discharged to a ward or straight home. Unlike on ACCU there is an early focus on trying to make patients 'homeable' rather than just 'wardable'.

Deteriorating patients on 3D being re-referred to critical care should be referred through 1113 who will liaise with the consultants on ACCU and 3F

The **organ supports** that can be provided on 3F include: HFNO, CPAP\*, vasopressor support (metaraminol to a maximum of 10 mg/hr or noradrenaline to max of approximately 0.2 mcg/kg/min).

[\* patient's own CPAP. If medical CPAP is required, this is a bridge to escalation to ACCU]

Other reasons for admission are frequency of observations (especially neurological) and management of extraventricular / lumbar drains, tracheostomies and chest drains.

### **A note on equipment**

There is no airway trolley on 3F. Emergency equipment can be found in the resuscitation trolley, transfer bags and the tray of emergency drugs in the pharmacy fridge (these should be checked every Monday or after use). There is an ultrasound machine with linear, curvilinear and cardiac probes.

### **Specialties and case mix**

Surgical specialties include hepatobiliary, vascular, colorectal, upper GI, gynae-oncology, orthopaedics, neuro-oncology, plastics, maxillofacial and ENT.

We work together with the surgeons and share the care of their patients - we are therefore expected to liaise with them regularly. This is usually most easily done face to face, and they are expected to update us during their ward round. Equally, if there is any change in a patient's condition trainees are expected to update them ASAP.

### **Early Recovery After Surgery (ERAS)**

ERAS programs are evidence-based protocols designed to standardised medical care, improve outcomes, and lower health care costs. This is aimed through refinements in preoperative, intraoperative, and postoperative strategies.

- **Preoperative** strategies: medical risk evaluation, patient education re post-operative management, medications they may need e.g. antibiotics.
- **Intraoperative** strategies: e.g. selecting short-acting anaesthetic agents, lung-protective ventilation, restrictive fluid therapy, temperature regulation, and laparoscopic surgery.
- **Postoperative** strategies: e.g. multimodal analgesia with an emphasis on non-opioid pain management, appropriate fluid management, early feeding and mobilisation, avoid NG tubes if possible, early removal of urinary catheter, early discharge.
- This means eating, drinking and moving as early as possible. Our ethos is about getting patients ready to go home rather than only focusing on getting them to the ward. For example, starting to ask whether patients may need a package of care etc. before stepping down to the ward

## **Daily Routine**

08:00 Morning drill on 4E +/- teaching

Handover & House-keeping on 3F

08:45 Consultant and NIC attend bed meeting in atrium between 3F and 3D

09:00 Consultant attends ACCU sitrep meeting in 4<sup>th</sup> floor atrium

~10:00 AM consultant ward round

13:00 Meeting with Pharmacist (45840 / b1847) - opportunity to raise any queries

PM Prep admission clerkings for expected elective patients +/- review in Recovery

15:00 Consultant and NIC attend bed meeting in atrium between 3F and 3D

~17:00 PM consultant ward round including review of admissions in 3F / Recovery

20:00 Handover to night team in 3F doctors' office

## **Daytime escalation pathway: 3F consultant**

## **Overnight escalation pathway: 1113 on 4E and ACCU consultant**

## **Setting up Cerner**

Unlike on ACCU, patients do not have paper charts - vital signs, fluid balance and other aspects of patient care will all be recorded on PowerChart by the nurses.

You can find these under the 'Assessment / Fluid balance' tab on the left of the patient window.

You can personalise this by choosing which parameters you want to be shown - select 'View' in the top menu > Layout > Navigator Bands

You can then deselect the unnecessary parameters from the 'Current Document Types' and select the relevant ones from the 'Available Document Types'.

You may need to log out and back in again to refresh.

The most relevant Navigator Bands for 3F are:

- Adult Systems Assessment
- Fluid Balance (appears in list as Input/Output)
- Medication Related Monitoring
- Adult Lines-Devices
- Adult Quick View

Work your way around the various Navigator Bands to find various observations etc.

One useful thing that is often hard to find is the record of PCA usage! This is found under Adult Systems Assessment -> Pain Management Observations

*See Appendix (1) for step by step on how to set up Assessment/Fluid Balance*

### **Daily admissions (Monday to Saturday)**

The Consultant and Nurse in Charge will have the list of expected admissions each day – ask them for details in order to prepare admissions clerkings and monitor progress through theatre.

### **Tracking patients' progress through theatre**

Often patients don't arrive on the ward until late in the day (sometimes not until the night shift) If this is the case it's often easier to just go to Recovery and review / clerk the patient there.

A useful hack is to set up Cerner so that you can follow a patient's journey through Theatre and Recovery. This is not done on PowerChart but rather Surginet:

- Open Cerner Millennium and click on the 'Surginet' icon
- Multiple banners appear at the top with different clinical areas that can be selected for.
- The relevant ones for 3F will be RNJ RL Theatres Whiteboard and RNJ RL ACAD Whiteboard
- In the 'Status' column you'll be able to see whether the patient is out of theatre

*See Appendix (2) for step by step on how to follow patient progress on Surginet*

### **Creating admission and discharge documents**

On 3F we don't use the same clerking proforma as on ACCU. Ming-li has set up some useful auto-texts for documentation, which are more relevant to 3F.

You can copy these and use them by following these steps:

- From the 'View' menu at the top, select 'Auto Text Copy Utility'.
- Search for 'Kong' and select 'Ming li Kong'.
- Then copy the MU admission clerking and MU discharge summary into your own autotext under appropriate headings i.e. .muadmit or .mudis.
- Later when you are creating an admission or discharge note, type in .muadmit or .mudis and these templates will pop up.

*See Appendix (3) for step by step on how to set up autotexts*

When creating an admission or discharge note, it's useful to create ('prep') them in advance so that you or your colleague can edit and sign them more quickly later on. To prep the note:

- Click 'Add' in the Documentation bar
- Add 'Powernote'
- In the pre-existing templates section, search 'Critical Care - Progress Note'
- Use the auto-text functions above to produce a template from which can be filled in
- When this note is saved, others can only find it by filtering for 'All Powernotes'
- Alternatively, if you click sign & submit, other colleagues can see it and edit from the main Documentation page.

- In this case, clearly mark the document as DRAFT until the patient is actually admitted.
- When the patient is reviewed post-op, **please change the timestamp of the note to be the time of post-op review.**

*See Appendix (4) for step by step on how to prep clerking/discharge notes*

### TOP TIP!

When clerking, make sure to look at the HRA (+/- TPOPS) Assessments that have been completed pre-op (and documented on Cerner) and follow any recommendations given

### **Common prescriptions**

3F is a closed prescribing unit - the surgeons should request the 3F doctors to prescribe things rather than prescribe themselves.

We don't follow the routine prescriptions as for ACCU (chlorhexidine body wipes / mouthwash, topical emollients, ocular lubricants etc)

Consider the need for a PPI until oral nutrition is recommenced.

Make sure to prescribe mechanical thromboprophylaxis (TEDS + flowtrons) - these can be found on the ACCU care plan which should be started for all patients being admitted to the unit (and discontinued on discharge!)

With regards to chemical prophylaxis, the surgeons will usually specify when they are happy for this to be started

Regularly review their usual medications to see if any are appropriate to be re-started

Aperients and pro-kinetics should NOT be prescribed in the first few post-op days for patients who have had abdominal surgery unless directed by a senior surgeon.

Maintenance fluid rate should be based on body weight (e.g. 1 ml/kg/hr) unless otherwise directed, or if a change is needed in response to clinical situation

### **Micro advice**

If needing micro advice, it is usually best to ask the team upstairs on 4F to inform you when the micro consultant ward round starts (usually between 2-3pm) so that you can pop upstairs and tag on.

### **Routine bloods?**

Generally a full set of critical care bloods post-operatively at admission (day 1) and then again on the morning of day 3.

No need for *routine* bloods on day 2.

Thereafter, as required – decided on evening ward round for the following day

### **Ward step downs**

3F is a fast turnover unit which means it can be helpful to prepare discharges in advance, when things are quiet!

These can be prepared by using the auto text template Ming Li has created (as above).

At the time of ward step down please ensure any critical care specific drugs (including electrolyte supplementation) are discontinued.

Give a verbal handover to a member of the receiving surgical team once bed confirmed

### **Discharging home**

Happens more often than you might think!

The TTA and discharge summary are the responsibility of the surgical team.

Consider the need for physio / OT assessment prior to discharge

Patients should be given a paper copy of the sHDU/PACU discharge leaflet giving them advice on where to seek medical support in the event of post-operative complications

### **Opportunities for trainees**

3F offers a great opportunity for trainees to get experience in perioperative care as outlined by the curriculum. In terms of additional opportunities, these include:

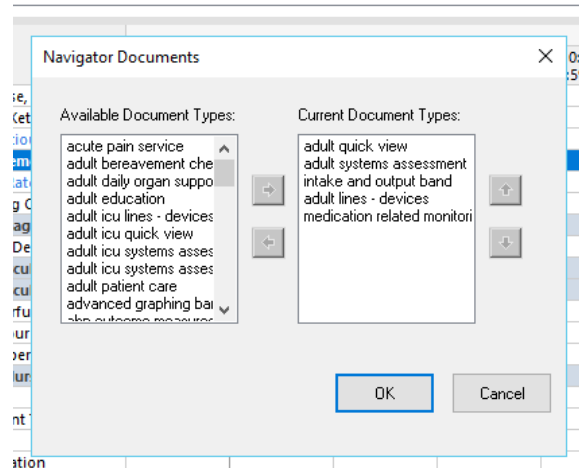
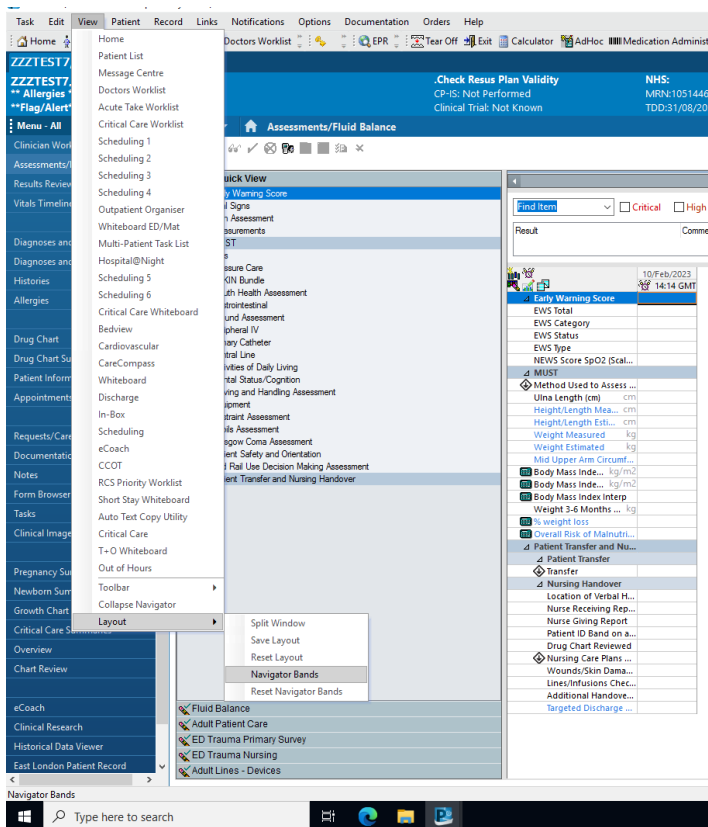
- Experience leading ward rounds depending on trainee level
- Attend bed management meetings
- Lots of QI and education/teaching opportunities for those interested - please let Ming Li or Julia know if you're keen to get involved in these.

*Julia Hadley, Ming-Li Kong, Bejal Patel, Rebecca Finch and Rino Maeda.*

*Created October 2022. Updated January 2023.*

*Any suggested additions / questions, please e-mail Julia Hadley.*

## Appendix (1) - Personalising Navigator Bands in Assessments/Fluid Balance view



To find record of PCA usage: Assessment/Fluid Balance → Adult Systems Assessment → Pain Management Observations

### Adult Quick View

#### Adult Systems Assessment

- ✓ Bed Rail Use Decision Making Assessment
- ✓ Moving and Handling Assessment
- ✓ Breath Sounds Assessment
- ✓ Respiratory
- ✓ Lung Function/Wearing Markers
- ✓ Chest Physiotherapy
- ✓ Incentive Spirometry
- ✓ Peak Flow Assessment
- ✓ Cardiovascular
- ✓ Pulses
- ✓ Pain Assessment
- ✓ **Pain Management Observations**
- ✓ Neurovascular Check
- ✓ Glasgow Coma Assessment
- ✓ Pupil Assessment
- ✓ Neuromuscular/Extremities Assessment
- ✓ Mental Status/Cognition
- ✓ Behaviour
- ✓ Neurological
- ✓ Stroke
- ✓ CIWA-Ar
- ✓ MUST
- ✓ Enteral Nutrition Checklist
- ✓ Parenteral Nutrition Checklist
- ✓ Gastrointestinal
- ✓ Enema Administration
- ✓ Food and Drink Chart
- ✓ Genitourinary
- ✓ Bladder Scan/Postvoid Residual
- ✓ Urinalysis Assessment
- ✓ Musculoskeletal
- ✓ Oedema Assessment
- ✓ Falls
- ✓ SSKIN Bundle
- ✓ Pressure Care
- ✓ Skin Assessment
- ✓ Wound Assessment
- ✓ Tissue Rap Observations
- ✓ Safeguarding Check
- ✓ Safety Thermometer
- ✓ Sedation
- ✓ Patient and Observer SCAR Assessment Score

Find Item

☐ Critical
 ☐ High
 ☐ Low
 ☐ Abnormal
 ☐ Unauth
 ☐ Flag
 And
☐ Or

Result	Comments	Flag	Date	Performed By
<div style="display: flex; justify-content: space-between;"> <div> <div>10/00 - 10:59 GMT</div> <div>09:00 - 09:59 GMT</div> <div>08:00 - 08:59 GMT</div> <div>07:00 - 07:59 GMT</div> <div>06:00 - 06:59 GMT</div> <div>05:00 - 05:59 GMT</div> <div>04:00 - 04:59 GMT</div> <div>03:00 - 03:59 GMT</div> <div>02:00 - 02:59 GMT</div> <div>01:00 - 01:59 GMT</div> <div>00:00 - 00:59 GMT</div> <div>23:00 - 23:59 GMT</div> <div>22:00 - 22:59 GMT</div> <div>21:00 - 21:59 GMT</div> <div>20:00 - 20:59 GMT</div> <div>19:00 - 19:59 GMT</div> </div> <div> <div>10/Feb/2023</div> <div>09/Feb/2023</div> </div> </div>				
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<div> <div>Nausea Score</div> <div>1</div> </div>				
<div> <div>Pruritus / Itching</div> <div>No</div> </div>				
<div> <div>Pain Management ...</div> </div>				
<div> <div>Attached Device(s)</div> </div>				
<div> <div>Neurovascular ...</div> </div>				
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<div> <div>Pulses/Perfusion</div> <div>Bilaterally ...</div> </div>				
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<div> <div>Epidural Line</div> </div>				
<div> <div>Opioid Transder...</div> </div>				

## Appendix (2) - Following patent journey through Theatre using Surginet

Google Docs: Online Document x SMU Handbook - Appendix.doc x SMU Handbook - Google Docs x SMU Handbook Appendix 2 - G... Welcome to CernerWorks!

Not secure | 104.170.249.7/Citrix/P0509Web/

**Cerner** APPS

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A&E Accession Result Entry AP Case Findings AppBar BI Launch Pad - NON SSO Collection Inquiry Collection List Combine Tool D2 Discern Analytics

Explorer Menu HIM Chart Coding HIM Information Request HIM Reports HIM Request Queue HIM Task Queue HIM Tracking Iware Critical Care Dashboard Label Reprint MTA64

P2 Sensus Console PMOffice PowerChart Report Request Report Request Maintenance Reporting Portal Revenue Cycle SchApptBook SNReport Builder SNReportManager

Specimen Login **Surginet** Surginet Anaesthesia Surginet Anaesthesia Record Viewer

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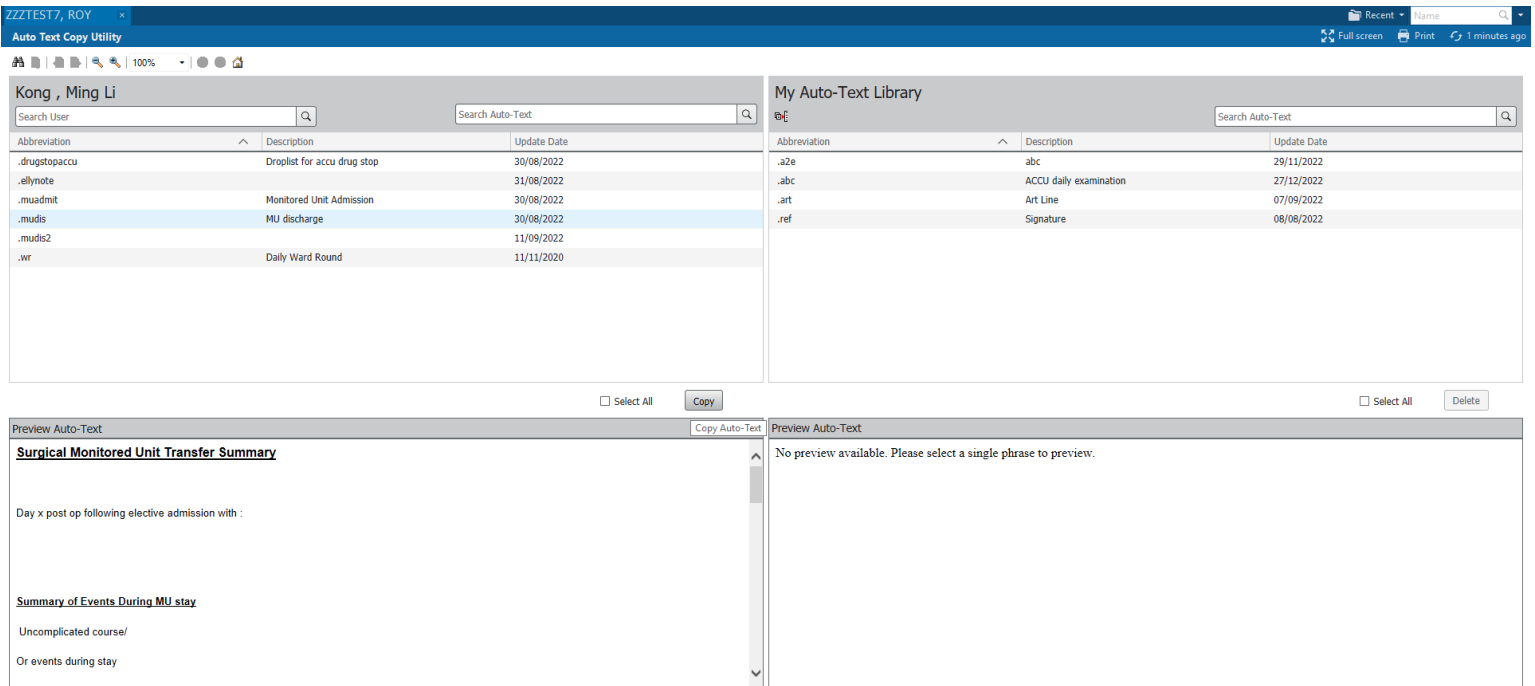
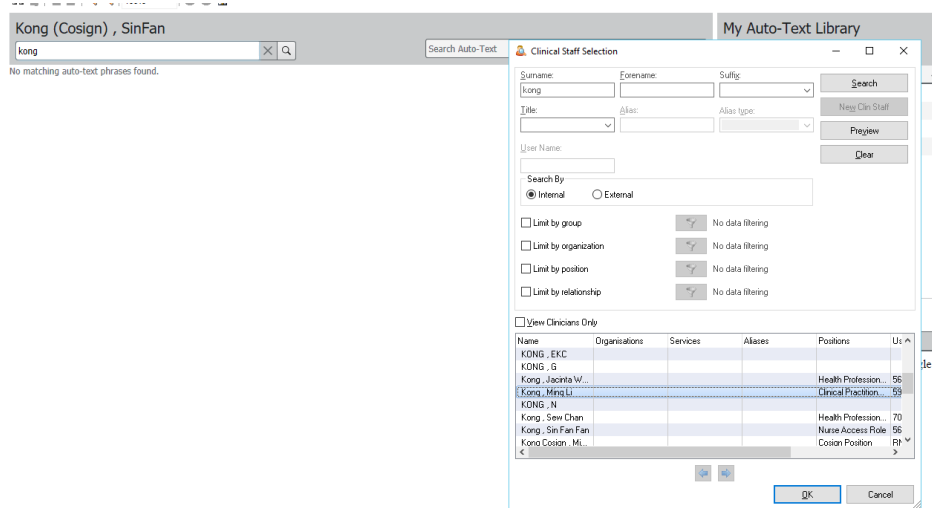
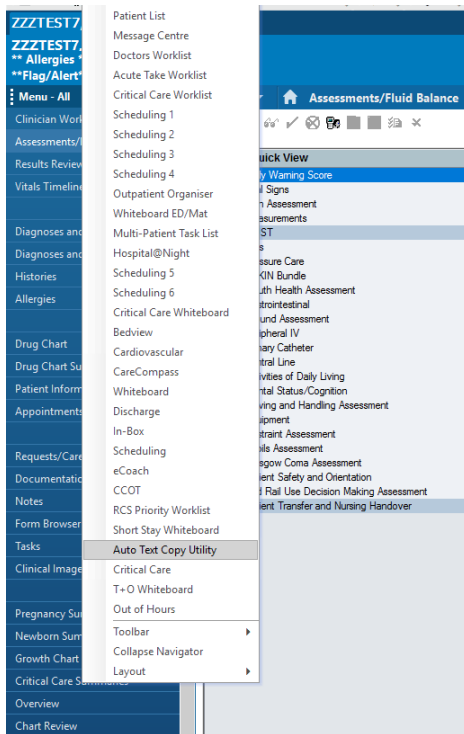
Cerner **Millennium** is the core clinical IT system at Barts Health.

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Patient	Record	Links	Case Actions	Staff	List	Help
ing	Case Selection	Dynamic View	Patient List	Scheduling	EPR	eTTA EDM Exit AdHoc PM Conversation Communicate Result Copy Related Records Add Scheduling Appointment Book Preference Card
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iteboard	R1H WX Endoscopy Ward	R1H WX Endoscopy Whiteboard	PV Gen Ward	PV Gen Whiteboard	RNJ RL Neurophysiology Ward	RNJ RL Neurophysiology Whiteboard
iteboard	R1H NU Endoscopy Ward	R1H NU Endoscopy Whiteboard	R1H NU Gateway DSU Th Ward	R1H NU Gateway DSU Th Whiteboard	R1H NU Main Th Ward	R1H NU Main Th Whiteboard
Whiteboard	R1H IR Theatres Ward	R1H IR Theatres Whiteboard	R1H IR Theatres Ward	R1H IR Theatres Whiteboard	R1H WX Cath Lab Ward	R1H WX Cath Lab Whiteboard
eatres Ward	SC4 MEH DSU Theatres Whiteboard	RNJ Endoscopy U Ward	RNJ Endoscopy U Whiteboard	RNJ KGV Theatres Ward	RNJ KGV Theatres Whiteboard	RNJ RL ACAD Ward
rd	RNJ RL Paeds Whiteboard	RNJ RL Theatres Ward	RNJ RL Theatres Whiteboard	R1H ETC Eye Th Ward	R1H ETC Eye Th Whiteboard	R1H WX DC Th Ward
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## Appendix (3) - Copying Ming Li's autotext for admissions and discharges





## Appendix (4) - Prepping notes for admissions / discharges

ZZZTEST7, ROY

ZZZTEST7, ROY  
\*\*Allergies\*\*  
\*\*Flag/Alert\*\*

.Check Resus Plan Validity  
CP-IS: Not Performed  
Clinical Trial: Not Known

NHS:  
MRN:10514468  
TDD:31/08/2022

Age:41 years  
DOB:01/Apr/1981  
Gender:Male

Loc:RNJ RLH 4E: gBa  
CnsIt:Gutteridge , Ch  
Inpatient [27/Jan/2022 1

Menu - All

Clinician Workflow  
Assessments/Fluid Balance  
Results Review  
Vitals Timeline

Diagnoses and Problems  
Diagnoses and Procedures  
Histories  
Allergies + Add

Drug Chart  
Drug Chart Summary  
Patient Information  
Appointments

Requests/Care Plans + Add  
Documentation + Add  
Notes

Documentation

Advanced Filters

Arranged By: Date Newest At Top

General Clinical Note 08/Feb/2023 10:19:0...  
Naveed Hussain , Naveed  
Critical Care - Transf... 26/Jan/2023 07:17:0...  
SMU Transfer Note Maeda , Rino  
Critical Care - Transf... 26/Jan/2023 06:57:0...  
SMU Transfer note Maeda , Rino  
Critical Care - Progre... 10/Jan/2023 11:39:3...  
WR test Leitch , Andrew William  
Nursing Handover N... 05/Jan/2023 11:17:3...  
PAED DENTAL TRIAGE TRAIN , Prod  
Adult Capacity Admis...01/Dec/2022 14:17...  
Adult Capacity Admis...Stephenson , Ghislain...  
Discharge Summary ...29/Nov/2022 15:01...  
Inpatient Discharge S... Cholia , Gurminder Si...  
General Messages 23/Nov/2022 10:50:0...  
ZZZTEST7, ROY (1051... Gutteridge , Charles N...  
General Clinical Note 22/Nov/2022 16:25...  
Cancer of Unknown P... Kashem , Shah

Documentation

+ Add

New Note X List

Hide Note Details

\*Type: Critical Care - Transfer Note

\*Date: 26/01/2023 0717 GMT

Title: Critical Care - Progress Note

Document Template Existing Pre-configured Catalogue Favourites

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CG83 Rehabilitation after Critical Illness Paperwork	Dynamic Content Creation	Y	Scott , Natalie Bronwyn	23/10/2020 15:08:19	
Critical Care - CCOT review	Dynamic Content Creation	Y	Nourse , Simon	01/11/2016 12:19:44	
Critical Care - Progress Note	Dynamic Content Creation	Y	Kwok , Stephanie Hu Tung	17/08/2021 14:48:17	
Critical Care Admission ACCU	Critical Care - Admission Note, Dynamic Content Creation	Y	Pennington , James Martin	10/07/2019 09:48:34	
Critical Care Admission ACCU PublicBackup	Critical Care - Admission Note, Dynamic Content Creation	Y	Pennington , James Martin	15/03/2018 08:42:20	
Critical Care Admission Clerking	Dynamic Content Creation	Y	Baker , Elinor Chloe Yare	17/02/2022 15:56:14	
Critical Care Discharge Summary NUH	Dynamic Content Creation	Y	Salzmann , Brooke Sylvia	22/06/2018 15:31:36	
Critical Care Evening WR (Freetext)	Dynamic Content Creation	Y	Thavasothy , Murali	24/04/2022 18:44:04	
Critical Care Focused Echocardiography (FICE) Report	Dynamic Content Creation	Y	Singer , Ben Richard Felix	16/07/2021 13:51:26	

