Junior Doctor Handover Pack	
Orthogeriatrics	
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WELCOME TO ORTHOGERIATRICS

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Welcome to Orthogeriatric

Welcome to Orthogeriatric! Rather than being allocated to a specific ward you will be part of the team that reviews and co-manages patients on the Orthopaedic wards (F18/F19/F20). The patients who will be under your care are those aged ≥60 years old with a femoral fracture*.

We strive to improve the care for elderly patients with femoral fractures. This can be achieved through education, diligence and also financial incentives via Best Practice Tariffs (BPT). In regard to the latter, please ensure that you are aware of the BPT guideline applicable to the patients reviewed by orthogeriatric.

The key criteria of the best practice tariff that the hospital is required to meet for hip (from April 2020 this would include all femoral fractures) fracture patients aged 60 and over include:

1. That the time to surgery is within 36 hours of arrival in an emergency department, or time of diagnosis if an inpatient.
2. That the patient is admitted under the joint care of a consultant geriatrician and a consultant orthopaedic surgeon.
3. That they are assessed by a geriatrician within 72 hours of admission.
4. That there is a postoperative multi-professional rehabilitation team assessment.
5. That falls and bone health assessments are completed.
6. That post -operative delirium assessment is completed

You contribute to this by ensuring that each part of the orthogeriatric assessment is completed including the initial assessment, MDT and post-operative AMT & 4AT.

**Dr Lunt usually sees non-femoral fracture patients on Monday, Thursday and Friday afternoons. These are older (≥65yrs) patients who have sustained fractures such as upper limb, pelvis and below the knee. These patients too are based on the same 3 wards and it is expected that you and the ward based junior doctors would support Dr Lunt in the assessment and care of these patients.*
Dr Mark Vettasseri sees non-femoral fracture patients on a Thursday afternoon.
When Dr Lunt is on leave, Dr Muaz Umer would usually cover her work. Dr Umer usually visits the ward on Monday afternoon and Wednesday and Friday morning. Dr Ma is currently covering Dr Poon on Thursday morning and visits the wards on a Friday afternoon too.

The Role of the Junior Doctor attached to Acute Orthogeriatric Medicine

"The objective of the team working in orthogeriatric medicine is to care for the older patients admitted with femoral fractures during their hospital stay and facilitate appropriate safe discharge.
The junior doctor attached to the team providing acute orthogeriatric care has a significant role to play in this regard, while gaining valuable learning.

The following are expected from/of you:

1. To be aware of the patients with femoral fractures who are newly admitted as well as those who are in the post-operative period. For this purpose you are expected to have a **list of patients admitted with a femoral fracture** on each of the three F- floor wards. Please ensure that a list of patients is likely to contain confidential details and that these are appropriately, securely maintained according to the Trust Guidelines on confidentiality.

2. To **check and act appropriately on results of investigations** requested in a timely fashion.

3. To **handover duties appropriately**.

4. To perform a **postoperative 4AT** (delirium assessment score) and record it in the appropriate area in the admission booklet. The post -operative 4AT is to be usually performed on the 3rd postoperative day, but if this falls on the weekend, it has to be performed on the subsequent Monday.

5. To actively participate in the **multidisciplinary meetings** (MDT).

6. To **speak to families** regarding collateral histories as well as keeping them appropriately informed of the patient's progress and management plans.

7. To **communicate with specialist services as well as primary care** where necessary.

8. Ensure **accurate documentation**.

9. Join the **orthogeriatric ward round** each morning.

10. Contribute to the **electronic discharge summary.**

11. **To manage common pre-op and post-op medical problems.**

You are encouraged to actively participate in learning activities including workplace based assessments and Clinical Audit. You have access to attend The Health Care of the Older Persons teaching sessions on a Friday afternoon each week from 13.00-14.00 (free lunch at 12.30)* in the HCOP seminar room, B floor, South Block. "

Dr Namal Weerasuriya, Dr Mun Hoe Poon & Dr Ellie Lunt
Consultants in Orthogeriatric Medicine.

*There is no free lunch since the COVID crisis. We hope that this will change in the near future

The Team

Normally there are:

- 1x F1.
- 1 x F2 (although they may be on call etc...).
- 1 X SHO/TG doctor.
- 1 x Consultant (Dr Weerasuriya on Monday and Tuesday; Dr Poon on Wednesday and Thursday*, Dr Lunt* on Friday).
- At times there may in addition be a Registrar who helps review patients on the ward round. There is sometimes an Advanced Care Practitioner from HCOP who joins to support as well as learn on the job.

Daily Schedule

Arrive to collate the names of patients who will need reviewing on the ward round that day.

8:00: Ward round typically starts with the patient listed first for theatre (unless they have already been seen by an orthogeriatrician). Occasionally there might be a patient who has become very ill and needs assessment at the start of the day.

08:00 - 12:00: Ward round across 3 wards, including review of any sick patients on the wards.

(10.30– F18 MDT every Tuesday, F19 MDT every Wednesday and F20 MDT every Friday)*

12.00 – 17.00: Jobs from the ward rounds including: Post-op AMT & 4ATs, discussions with relatives, consenting for IV Zoledronic acid/Denosumab, preparing the MDTs, supporting the ward doctors, and preparing discharge summaries/TTOs.

Handover any urgent outstanding investigations to the LD2 SHO to chase in the evening.

Ward Round

It is important to identify which patients need to be seen so that they don't get missed. You can identify new femoral fracture patients from Nerve Centre, the daily theatre lists and the T&O handover sheet.

The consultants will also review medically unwell patients on the wards at the request of the T&O team. It is helpful to collate a list of patients the ward doctors would like to be reviewed the day before.

As the mornings are often busy, it is important to prioritise which patients are seen first. This includes patients first on the theatre list and those who are acutely unwell. On Monday mornings it is also important to identify new femoral fracture patients who were admitted on the previous Friday to ensure that they are seen by a geriatrician within 72 hours of attendance at ED.

Within the clerking booklet there is very limited space to write so Dr Poon will likely show you a way in which you can write out all the information from the review without wasting too much space.

Here is a rough layout:

- Age and sex in the top corner.
- One line for their past medical history.
- One line for their social history (including where they live, if they have stairs, independent/not independent of activities of daily living, pre-admission mobility level).
- Mechanism of Injury (MOI). Leave plenty of space here to fill in while talking to the patient.
- Examination findings and observations (fluid balance and weight are also helpful to include)
- Chest x-ray, ECG and Pelvic x-ray findings at the bottom.
- Problem list and plan on the following page.
- Sign the booklet in the relevant box.
- The falls assessment and bone plan are on the following page – make sure this is filled out in full and don't be afraid to clarify any of this with the consultant.

For each of the new femoral fracture patients we thoroughly review their past medical history and are also interested in their previous osteoporosis/falls history. You will rapidly become familiar with where to find information on NOTIS, and the consultants will show you what to do. Some top tips however include:

- Write the admission bloods on the back of the clerking booklet. Include the patient's historic/baseline renal function / Hb level so that we can tell if it has acutely changed/deteriorated.

- Look through the documents section on NOTIS – you are looking for key aspects of their past medical history, but in particular (1) previous fractures, (2) previous treatment for osteoporosis, (3) previous DXA scans, (4) medical issues that have particular implications for their surgery (e.g. severe aortic stenosis, recurrent admissions for COPD).

- Look in the radiology section on NOTIS for past DXA scans.

- Look in the cardiology section on NOTIS for past Echos and 24 hour tapes.

Investigations

Routine bloods for all patients:

Request post-operative bloods for patients usually an FBC + UE on days 1, 2 and 3 post-op.

Request osteoporosis blood tests (calcium, PTH, Vitamin D, and TFT) for all patients unless the orthogeriatric consultants state otherwise. Obviously if the patients have recently had these blood tests they may not require a repeat test.

Review haematinics in those with anaemia and appropriately supplement those with deficiency.

Handover and chasing results and referrals

Please ensure that results requested are reviewed and acted on appropriately. It is also important to handover jobs so that patient safety is not compromised.

MDT Meetings

Prepare for the MDT the day before.

Prepare the MDT page in the Orthopaedics admission booklet as follows. Leave space to add notes during the MDT.

Remember to comment if there is post op anaemia or AKI and how they are being treated. If this is not applicable simply write "No post-operative anaemia", "no post op AKI"

Age and Number of days post op.

Medical:

Post-operative anaemia "120—>90 - Prescribed ferrous fumarate.

Post-operative AKI eGFR 90—> 120 -Treated with IVI- now resolved."

Other acute problems e.g. delirium, pneumonia, pulmonary oedema,

Lying/standing blood pressure (recorded on nerve centre by physios)

Nursing:

Food and fluid intake:

Bowels: (whether constipated and whether continent)

Bladder: (whether continent and whether catheter has been removed)

Nursing concerns:

Physio: (mobility before admission, current mobility and mobility aimed for)

OT:

Bone blood tests: (calcium, vitamin D, PTH, TFT, IGS, other)

Bone medications/plan: (mention drugs [e.g. Zoledronic acid IV & vitamin D] and follow up plan)

Post Op AMT and 4AT score = "8/10." "2"

VTE: (whether patient will require extended enoxaparin based on the NETS score)

Plan :

Discharge summaries

Orthogeriatric patients usually have a number of co-morbidities and social issues which are addressed by the MDT. This is one of the reasons that the MDTs are so important. It is also important to communicate this to their GPs so part of the role is to include these issues on the discharge letters. Here is the proforma outlining what should be included in the discharge letters.

This can be completed after the MDT to save time, but needs updating close to the point of discharge.

The presenting Fall & history of Falls:

Mechanism of injury (circumstances of the fall):

Number of falls in the past 12 months including current:

ECG on admission:

Postural blood pressure: Supine / mmHg Standing / mmHg

Underlying/contributing reason/s for the fall:

Preoperative and Post- operative complications:

Cognitive function:

AMT on admission: AMT post-surgery & 4AT score:

Mental Health Team's opinion (if it took place):

Osteoporosis:

Blood test results: Calcium- TSH- PTH- S.Paraprotein- Vit D-

Medications for osteoporosis:

Osteoporosis follow up plan:

Continence on discharge: urinary- faecal-.

Mobility on discharge:

Discharge destination:

Rehabilitation goals and arrangements:

Social services &/or family support on discharge:

Best way of doing your jobs so everyone can go home on time

You will develop your own routine to ensure that everything is complete, but a few tips include….

- Ensure bloods/investigation are requested after the patient is reviewed.
- Ensure any referrals are made promptly after the ward round or MDT, so patients are seen promptly.
- It has worked well to populate the TTOs with a lot of the information contained in the TTO template after the MDT. This ensures that all TTOs are populated and that you keep on top of the workload.
- Make good friends with the discharge coordinators!. They will tell you when people are going to be discharged enabling you to complete the last sections of the TTO, which cannot be completed until the point of discharge.
- If there is time, please review the patients who are day 1 post op with the consultant and highlight to the consultant any other femoral fracture patients who are unwell, need a senior review or if you have any queries.
- If there are sufficient orthogeriatric junior doctors in the morning, it has been helpful for one of the juniors to join the board round that runs each morning. This board round is run by the discharge coordinators, bringing together the nurses, physios and OTs. Can be very useful for picking up issues with femoral fracture patients!
- Please liaise with the orthogeriatric nurse practitioner and the ward discharge coordinators each morning around 10.00am as to the patients who are planned for discharge the following day, so that the TTO can be updated as to the discharge destination, mobility on discharge, and support arranged (if returning home) on discharge. Also, if a patient has a high post-operative 4AT score (delirium) please mention the repeated 4AT score as well on the TTO to show resolution of delirium.

Out of hours and handovers

Each day an SHO acts as the LD2 doctor. Any urgent ward jobs or unwell patients should be handed over to this individual.

As a T+O/Orthogeriatrics F1/F2 doctors you will do weekends on-call - please see the T+O handbook for further information. There is no orthogeriatrics service at the weekends.

Teaching

F1 and F2s have mandatory teaching on Tuesdays.

HCOP Teaching. Friday afternoons each week from 13.00-14.00 ~~(free lunch at 12.30)~~ in the HCOP seminar room, B floor, South Block.

T&O Teaching. Thursday lunchtimes, approximately 1pm. Details are circulated by a CT/fellow who coordinates the teaching.

Opportunities to teach:

Plenty of opportunity to teach medical students on the ward.

Breakfast club is a good opportunity to teach students and obtain feedback on your teaching from another doctor.

Organising annual leave

Rota coordinator needs to be contacted when organizing annual leave. Organise this early.

Common Conditions, investigations and management.

NB: these are just a general overview. Each patient/situation will be different and you should use your own clinical judgement and knowledge of the situation in managing patients. Remember to consult trust guidelines and Do not be afraid to ask for help if you are unsure what to do.

Post-operative Delirium

Definition: Acute confusional state

Delirium vs dementia

	Delirium	**Dementia**
Onset	rapid	Gradual
Course	fluctuating	Slowly progressing
Conscious level	Clouded	Alert
Thought content	Abundant incoherent	Impoverished
Perceptual abnormalities	Very common especially visual	Auditory and visual = 30%

Differential Diagnosis for delirium

- Dementia
- Depression
- Mania
- Paraphrenia
- Pain, dissociative disorders, response to stress

Common causes:

- Infection – commonly urinary/chest
- Constipation
- Post-operative complications/issues e.g.anaemia/AKI /anaesthetic related
- Medication related: e.g. opiates
- Electrolyte imbalance
- Neurological

Assessment and first line investigations:
Hx and Examination: usually use ABCDE
Bloods: Confusion screen:

FBC
U&E
CRP
Glucose
LFT

TFT
Bone profile
MSU/Urine dip
Consider imagining:
CXR
AXR
CT/MRI scan – NICE have a good set of guidelines to see if this is needed.

Essentially need to screen the patient completely to ensure that all the potential causes are found

Management:

- Treat the underlying cause
- Facilitate orientation. Make sure there is a clock and a calendar on the wall. Environment should be quiet and well lit- this can be challenging in hospital.
- Ensure that they are well hydrated and that any electrolyte imbalances are corrected.
- Avoid conflict - reassurance and anticipation
- Ensure that there are regular AMTS performed to monitor the patient's progress.
- Tranquillise sparingly – see the trust guidelines on the intranet for sedation policy for acutely confused patient

NB: There is also a delirium folder that is developed to help manage delirium – this is usually kept in the offices on C4 and C6.

Post-operative AKI

Common issue post-operatively

Diagnosed and categorised according to Creatinine level:

	Creatinine	Urine output
Stage 1	Rise **1.5-2** fold from baseline or ≥26.4μmol/L	≤0.5ml/kg/hr more than 6 hours
Stage 2	Rise **2-3** fold from baseline	≤0.5ml/kg/hr more than 12 hours
Stage 3	Rise **>3** fold from baseline	≤0.3ml/kg/hr more than 24 hours or anuria for 12 hours

(causes of AKI are categorised into: Pre-renal, Renal and Post-renal)

Some symptoms and signs:

- Urinary output:
  Normally: anuria or oliguria (sometimes poly)
  An abrupt anuria usually suggests an acute obstruction
-Nausea/vomiting
-Confusion
-Dehydration
-Hypertension

-Distended abdomen
-Postural hypotension - dehydration
-Low urine output

Investigations to consider will depend on if it is Pre-renal, renal and post-renal. EG: if you feel it might be post-renal an USS/ X-ray KUB to rule out obstruction. Hypovolaemia is a very common cause of AKI amongst our patients.

Management:

NB: caution with fluids in the elderly. If you overload these patients you will then have to manage AKI and fluid overload which is really tricky. Calculate their creatinine clearance using the calculator under the antibiotic guidelines section.

- **Don't be afraid to ask advice from the AKI service at NUH – especially stage 2/3.**

- **Review drug card and hold any nephrotoxic drugs e.g.: Ramipril. Also review enoxaparin (may need to be decreased to 20mg) and opioids (renally excreted so may need to be altered)**

- **IVIs and fluid balance monitoring – may need a catheter.**

Post-operative Anaemia

Anaemia is defined as Hb <130 g/L for males and <115 g/L for females. All patients should have FBC + U&E blood tests post operatively.

If the post op Hb has dropped significantly, you should consider their baseline Hb (Hb pre-operatively) and review the patient and consider if the they are actively bleeding from anywhere and review if they have symptoms and/or signs of anaemia.

If the Hb has dropped but they are asymptomatic, it may be appropriate to monitor the patient and their Hb, and to consider prescribing iron.

If they have a symptomatic post-operative anaemia you should consider crossmatching them for 1-2 units of RBCs. It is important to discuss this with the patient, explaining the complications of anaemia, the benefits and risks of a blood transfusion, and gaining their consent.

Please avoid blood transfusion unless there is a strong indication.

Discuss the patient's management with a senior if you are in any doubt at all of what course of action you should take.

Constipation

Constipation is common in hip fracture patients. There are multiple contributing factors, for example; period of reduced mobility, opiate medications, change in diet/environment, dehydration, pain.

It is important to consider prescribing prophylactic laxatives (i.e. Senna), particularly if the patient is prone to constipation and is taking opiate medications.

Prescribe oral laxatives and encourage oral intake.

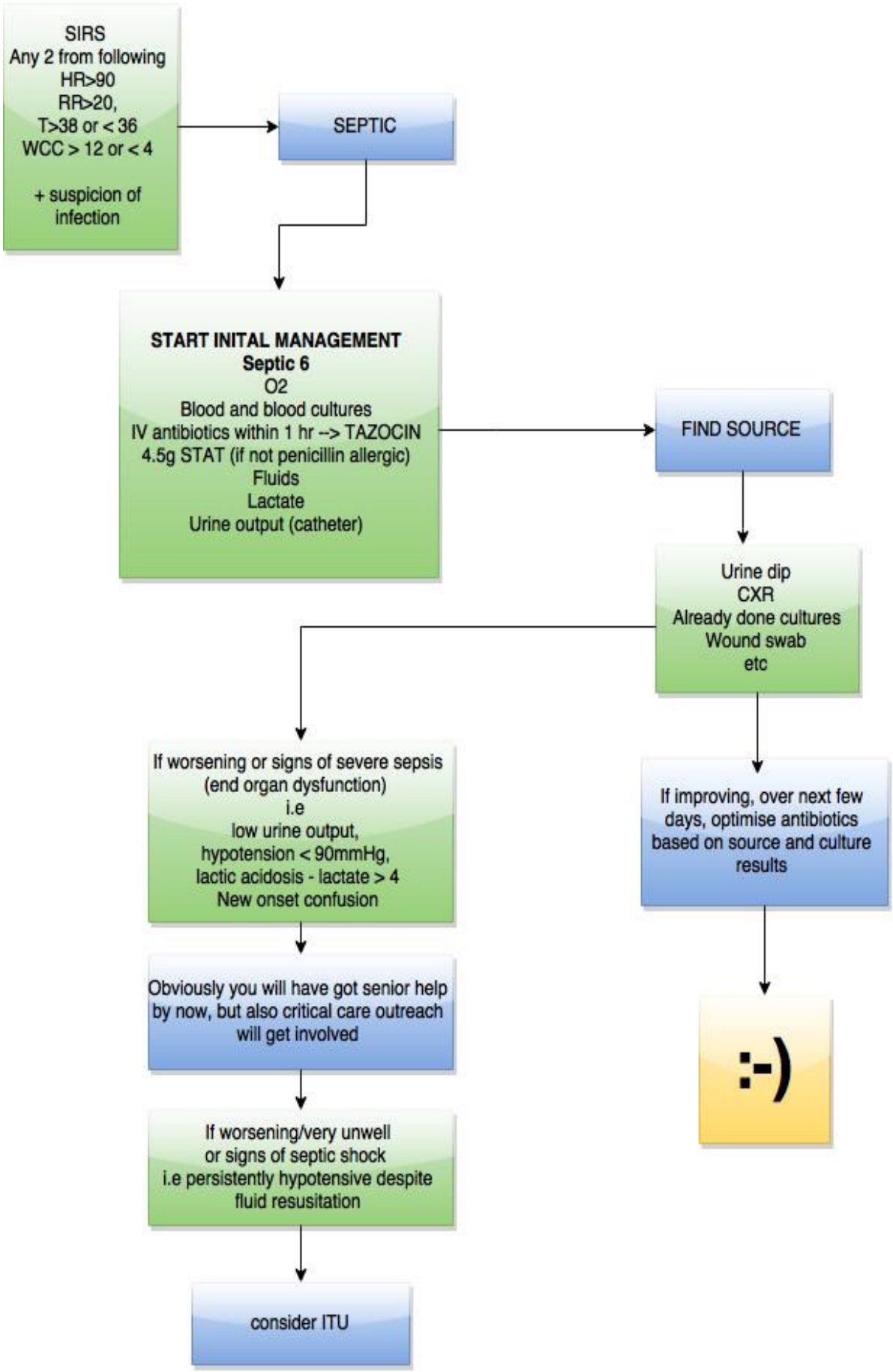
Oral Laxative	Mode of action
Senna	Stimulant
Sodium Docusate	Stimulant/softener
Movicol	Osmotic and bulk forming
Lactulose	Osmotic

If the patients' bowels are not open on oral laxatives, you should review the patient to ensure that there are no other causes (i.e. acute bowel obstruction), ask about eating/drinking, abdominal pain, nausea, vomiting, passing flatus, when bowels last open, what their normal bowel habit is. Examine their abdomen and do a PR examination.

If the patient has clinical features of constipation with hard stools in the rectum prescribe glycerin suppositories, if there are no hard stools, or the stools are palpated higher up prescribe either a microlax enema or phosphate enema. Suppositories/enemas are usually prescribed as STAT doses or PRN. If you are in any clinical doubt about the patient's symptoms/signs or what to prescribe, ask a senior for help.

Sepsis

Sepsis is commonly encountered on all wards, it is important you are familiar with the sepsis 6 guideline, so that you are able to recognise and treat this promptly.


SIRS
Any 2 from following
HR>90
RR>20,
T>38 or < 36
WCC > 12 or < 4
+ suspicion of infection
SEPTIC
START INITAL MANAGEMENT
Septic 6
O2
Blood and blood cultures
IV antibiotics within 1 hr --> TAZOCIN 4.5g STAT (if not penicillin allergic)
Fluids
Lactate
Urine output (catheter)
FIND SOURCE
Urine dip
CXR
Already done cultures
Wound swab
etc
If worsening or signs of severe sepsis (end organ dysfunction)
i.e
low urine output,
hypotension < 90mmHg,
lactic acidosis - lactate > 4
New onset confusion
If improving, over next few days, optimise antibiotics based on source and culture results
Obviously you will have got senior help by now, but also critical care outreach will get involved
:-)
If worsening/very unwell
or signs of septic shock
i.e persistently hypotensive despite fluid resusitation
consider ITU

Disclaimer

This pack nor any of its contents are formally endorsed by the Trust. It is a collection of personal opinions, tips and helpful advice written into a loose guide of how junior doctors experienced things when they were on this ward. As such these opinions should not be used as a definitive point of advice, especially for management of conditions/complications. Always ask your consultants/consult trust guidelines for definitive advice.