Osce Express
Session 2

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Meet the Team

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Course Overview

Osce Express

1. 11 session guide to common OSCE finals stations
2. Delivered by Foundation Year 1 Doctors
3. Peer-Reviewed Cases + Video Guides provided to all participants (published on MedAll, osceace.com)
4. Preparation for OSCEs...
5. ...And also preparation to be a safe FY1

Disclaimer

This course has been designed to help final year students with practical OSCE exams and is an unofficial resource that covers themes present in the University of Leicester Final OSCEs. We have nonetheless made this course as applicable to other final year OSCEs as possible, but there may be discrepancies in your University's expectations.

OSCE Express sessions are peer-reviewed by junior doctors, but we take no responsibility in the accuracy of the content, and additionally our sessions do not represent medical advice. Please use our sessions as a learning aid, and if you note any errors, do not hesitate to message us at osce.express@gmail.com

Kind regards,

Dr Nidhi Agarwal FY1
Sumedh Sridhar Yr5 Medical Student
OSCE Express co-creators

In Today's Session...

01

Referral and Discussion

02

Prescribing Safely

03

Q&A

01

Referral and Discussion

Layout

You will get 2 minutes reading time: look through the clerking pro forma, NEWS chart and investigation results

During the station, for the first few minutes:
- You can still use the time to look through the documents
- You will need to determine the **most likely diagnosis**

For the next few minutes:
- Communicate this to the specialist
- Decide the **appropriate request** you want to make
- The specialist will ask you questions relevant to the referral

You will be told who you need to refer to (e.g. radiology registrar, surgical SpR etc.)
This station will last 10 minutes.

Exam criteria

Appropriate referral Constructs and delivers an appropriate referral to a chosen specialist with relevant information including patient demographics, symptoms and examination findings
Structured and safe referral Communicates all of the key information succinctly without significant omissions or irrelevant detail Communicates information accurately in a logical sequence
Interprets investigations Confident and accurate in communication of investigation results to specialist Structured interpretation of investigations displaying good understanding of possible pathology
Differential Diagnosis Uses clinical reasoning to establish the most likely diagnosis
Management Demonstrates understanding of the appropriate management of the patient prior to [further investigation / transfer / specialist review]
Referral quality Adequately justifies the need for the specialist review/investigation

Top Tips

- Take your time!
- As always, treat it as if you are the FY1 referring this patient
- Do the basics - introduce yourself and provide patient details
- **Use SBAR - situation, background, assessment, recommendation**
- **Have a systematic approach for presenting imaging**
- Be prepared for follow-up questions

SBAR

- S for situation - **introduce** patient details, state the **probable diagnosis** to catch their attention
- B for background - **relevant** background including PMHx, SHx, Dax
- A for assessment - be **systematic** i.e. basic bedside investigations to more advanced investigations
- R for recommendation - I have done x for this patient, I believe they require y and z, would you agree?

Systematic approach to imaging

Chest x-ray: A to E

- A - airway
- B - breathing
- C - cardiac i.e. heart size
- D - diaphragm
- E - everything else i.e. bones, spaces/angles e.g. costophrenic angle, lung apices

Abdominal x-ray: BBC

- B - bowel
- B - bones
- C - calcification

ECG:

- Rate
- Rhythm
- Axis
- Intervals

CT head: **b**lood **c**an **b**e **v**ery **b**ad

- B - blood
- C - cisterns
- B - brain
- V - ventricles
- B - bone

STATION TIME!

Example case

You are the **FY1 in ED** and you have clerked Mr Root, a 60-year-old male who has presented with decreasing consciousness following a sports match.

You have ordered a **CT head**, which is available to view.

You are expected to refer the patient to the neurosurgery team over the telephone, covering the following:

- Summary of the case from the patient notes provided
- Systematic interpretation of the CT head, including the likely diagnosis
- Appropriate further management of the patient

You should provide the specialist with the information they require.
This station will last 10 minutes.

Clerking Notes

University Hospitals of Leicester NHS Trust

Hospital: LRI Ward: ED

Consultant: Dr Davidson

Affix patient ID label

Hospital No.: H123456

Name: Mr Sam Root

ADULTS

PC - reducing consciousness

HPC - 60 year old M was playing a cricket match as part of a social club and missed the ball. It hit the right side of his head. He lost consciousness for 2 minutes before regaining consciousness. He felt nauseous and vomited twice after playing the match. But in the past 2 hours he has become increasingly confused with reducing alertness. The history was provided by his wife. No other symptoms are reported.

PMHx - DVT, T2DM

DHx - apixaban, metformin, gliclazide, NKDA

SHx - non-smoker, non-drinker, lives with his parents

FHx - nil

O/E - warm peripheries, CRT < 2 seconds

Cardiorespiratory exam: HS I+II+0

Neuro exam:

Power difficult to assess due to reduced GCS

Left-sided hypertonicity

Upgoing left plantar reflexes

GCS 9/15 (E3 V3 M3)

Tick box to ensure appropriate items reviewed
(put N/A if necessary)

Date completed: 08/11/23

VTE	Antimicrobials	Nutritional status	Maximum level of care
Drug chart	EWS	EDD documented	Dementia screen >75yrs
Blood results	IV lines	DNA-CPR status	Diabetes monitoring chart
Imaging reports	Catheter	Sepsis screen	

W107

Clerking Notes

University Hospitals of Leicester NHS Trust

Hospital: LRI Ward: ED

Consultant: Dr Davidson

Hospital No.: H123456

Name: Mr Sam Root

NEWS 6

O2 sats 95% 15 L non-rebreathe mask

RR 21

BP 159/78 mmHg

HR 58 BPM

Temperature 36.7

Bloods:
Hb 136
WCC 10
Platelets 436
Neutrophils 5.4
CRP 39
Na+ 136
K+ 4.1
Urea 7.5
Creatinine 85
LFTs NAD

Clotting:
PT 15 seconds
APTT 40

BM: 5.6

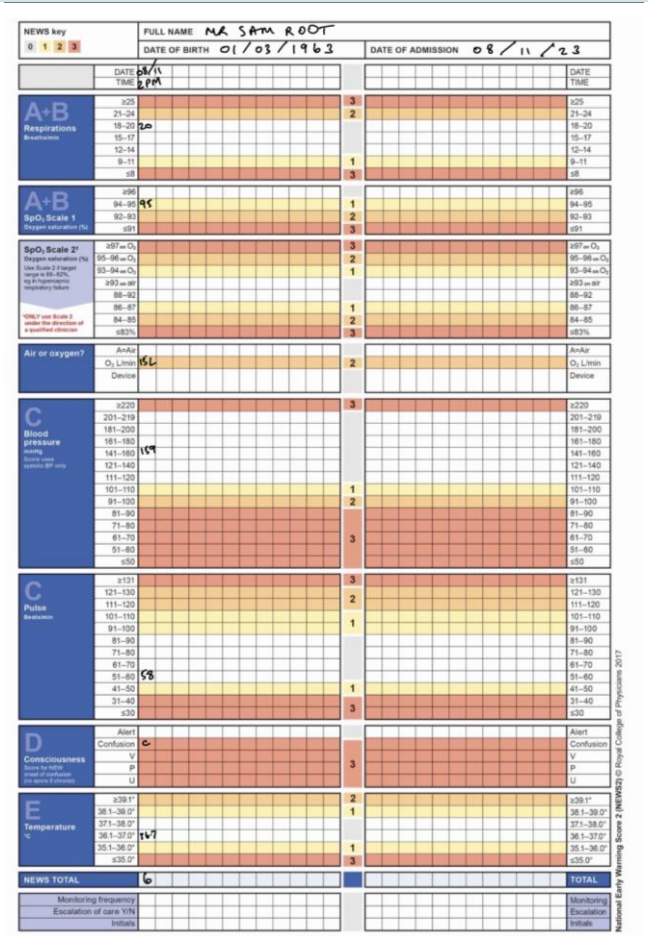
Josh Sampson
FY1
GMC 622167

Tick box to ensure appropriate items reviewed
(put N/A if necessary)

Date completed: 08/11/23

VTE		Antimicrobials		Nutritional status		Maximum level of care	
Drug chart		EWS		EDD documented		Dementia screen >75yrs	
Blood results		IV lines		DNA-CPR status		Diabetes monitoring chart	
Imaging reports		Catheter		Sepsis screen			

NEWS Chart



NEWS key 0 1 2 3

FULL NAME MR SAM ROOT

DATE OF BIRTH 01/03/1963

DATE OF ADMISSION 08/11/23

	DATE / TIME				DATE / TIME
A+B Respirations Breaths/min	≥25		3		≥25
	21–24		2		21–24
	18–20	20			18–20
	15–17				15–17
	12–14				12–14
	9–11		1		9–11
	≤8		3		≤8
A+B SpO_2 Scale 1 Oxygen saturation (%)	≥96				≥96
	94–95	95	1		94–95
	92–93		2		92–93
	≤91		3		≤91
SpO_2 Scale 2* Oxygen saturation (%) Use Scale 2 if target range is 88–92%, eg in hypercapnic respiratory failure	≥97% on O_2		3		≥97% on O_2
	95–96% on O_2		2		95–96% on O_2
	93–94% on O_2		1		93–94% on O_2
	≥93% on air				≥93% on air
	88–92				88–92
	86–87		1		86–87
	84–85		2		84–85
	≤83%		3		≤83%
*ONLY use Scale 2 under the direction of a qualified clinician					
Air or oxygen?	AnAir				AnAir
	O_2 L/min	15L	2		O_2 L/min
	Device				Device
C Blood pressure mmHg Score uses systolic BP only	≥220		3		≥220
	201–219				201–219
	181–200				181–200
	161–180				161–180
	141–160	159			141–160
	121–140				121–140
	111–120				111–120
	101–110		1		101–110
	91–100		2		91–100
	81–90				81–90
	71–80				71–80
	61–70		3		61–70
	51–60				51–60
	≤50				≤50
C Pulse Beats/min	≥131		3		≥131
	121–130		2		121–130
	111–120				111–120
	101–110		1		101–110
	91–100				91–100
	81–90				81–90
	71–80				71–80
	61–70				61–70
	51–60	58			51–60
	41–50		1		41–50
	31–40		3		31–40
	≤30				≤30
D Consciousness Score for NEW onset of confusion (no score if chronic)	Alert				Alert
	Confusion	C	3		Confusion
	V				V
	P				P
	U				U
E Temperature °C	≥39.1°		2		≥39.1°
	38.1–39.0°		1		38.1–39.0°
	37.1–38.0°				37.1–38.0°
	36.1–37.0°	36.7			36.1–37.0°
	35.1–36.0°		1		35.1–36.0°
	≤35.0°		3		≤35.0°
NEWS TOTAL		6			TOTAL
Monitoring frequency					Monitoring
Escalation of care Y/N					Escalation
Initials					Initials

National Early Warning Score 2 (NEWS2) © Royal College of Physicians 2017

CT Head

Example SBAR

Hi, this is Nikita, an FY1 in ED. Am I speaking with the neurosurgical registrar? I have a patient I would like to present, are you happy to take their details down?

I have Mr Root, a 60-year-old M who has come in following a sports injury with decreasing consciousness. I suspect he has an extradural haematoma.

S - he has been brought in by his wife who has given the history. He was playing cricket, missed the ball and it hit the right side of his head as he is left-handed. He collapsed, re-gained consciousness but had 1 episode of vomiting. He has deteriorated since with reducing consciousness.

B - he had a DVT recently and also suffers from type 2 diabetes mellitus

A - his NEWS is 6 (RR 20, 02 sats 95% on 15L non-rebreathe mask, BP 159/78 mmHg, HR 58 BPM, he is confused and agitated. His GCS is 9/15. On examination, he is warm peripherally, with CRT < 2 seconds, his chest sounds clear and heart sounds are normal. His right pupil does not react to light compared to the left pupil. Neurological examination was challenging to assess but he has increased tone and upgoing plantar reflexes. Bloods were grossly normal. A CT head was also requested - would you like me to present this?

Example CT head summary

This is the CT head of Mr Root taken at 2:45 PM on 08/11/2023.

B - there is a hyper dense, concave focus in the right, temporal region of his brain

C - cisterns are normal

B - there is right-sided sulcal effacement but there is still grey matter/white matter differentiation

V - there is ventricular effacement but no midline shift

B - I can see a linear skull fracture to the right temporal bone but with minimal displacement

In conclusion, I believe this patient has a right-sided, extradural haematoma with a temporal, non-displaced bone fracture and ventricular effacement but no midline shift.

Continuing SBAR...

- **R** - I believe Mr Root requires neurosurgical intervention in the form of a craniotomy. Would you agree and is there anything else you would like me to do?

- Follow-up questions include:
  - Are there any additional tests and initial management approaches you would undertake?
  - Are there aspects of the clinical presentation that concern you? If so, what are they?
  - What features in the CT head would make you consider urgent surgical intervention?
  - How would you monitor the patient in the interim?

Thank you very much. I am happy to accept this referral.

Questions about Referral and Discussion?

More practice cases coming soon!

02

Prescribing Safely

Layout

Using Investigations to Prescribe

01

<u>0-5 mins</u>:
- Analyse charts and notes
- Suggest appropriate reasoned investigations

02

<u>5-10 mins:</u>
- Interpret results + diagnose
- Use results to prescribe

03

- Paper chart o**r e-prescribing**
- Adult or child
- BNF, calculator and local guidelines available

Examiner Expectations

Assimilation of information Confident, accurate approach to reviewing and summarising information
Investigations Requests appropriate initial investigations and appropriately justifies these
Interpretation of results and diagnostic reasoning Concise, structured approach to interpretation of results Generates appropriate list of differential diagnoses and uses investigation results to refine this appropriately, giving an appropriate most-likely diagnosis
Clearly documented prescription Capitals, time, date, signature with block print name
Confident prescriber Can prescribe correctly (without using the BNF if it is straightforward) Evidence of having practiced prescribing
Prescribes safely (patient details) Allergies documented Correct boxes completed
Prescribes safely (Drug) Drug name, dose, route, frequency Confident accurate approach Takes into account relevant investigation results

Assessing the Patient

"COULD IT BE SEPSIS?"
IT'S A SIMPLE QUESTION, BUT IT COULD SAVE LIVES.

"You are the FY1 on _____. Patient has presented with x symptom. Review the notes and obs chart then prescribe using the available information"

Information gathering

- HPC, PMH, current medications, allergies – clarify allergy, SHx, any chance of pregnancy?

Examination

- Respiratory, Cardiovascular, Abdominal, etc. (look for differentiating features)

Summarise with reasoning

- Findings, differentials, likely diagnosis. Suggest appropriate further tests with reasoning.

Investigations

Bedside

Urine
Cultures
ECG
VBG/ABG

Bloods

FBC, U&Es, LFTs, bone profile, CRP, glucose, TFTs, coagulation
Blood cultures

Imaging

CXR
USS
Doppler
CT head

If you miss out an investigation, examiner will still provide all the necessary information

Approach

P – Patient details

Re – Reactions (allergies)

S – Signatures

C - Contraindications

R – Route (is IV route needed?)

I – IV fluids (indication, adult or child?)

B – Blood clots (VTE prophylaxis/treatment)

E – antiEmetics (severity?)

R – Relief of Pain (Pain ladder)

Renal or Hepatic Impairment?

DDIs, electrolyte imbalance, pregnancy/breastfeeding

Special requirements: time of day, dosing instructions

Top Tips

1. Chance for examiners to evaluate your: clinical reasoning, diagnostic skills, assessment of contraindications & cautions to prescribing

2. Record patient details, allergies on the chart before prescribing your drug of choice

3. PSA prep directly helps with this station!

4. Patient likely to have renal impairment

5. Know your scoring systems – CURB-65, FeverPAIN, CHA_2DS_2-VASc, Wells, QRisk

Practise With Us

You are the surgical FY1 in the ED at Somewhere Royal Infirmary.

John Brown a 56-year-old has presented with acute pain in his right knee. Review the notes and obs chart then prescribe using the available information.

Practise With Us

Clerking notes

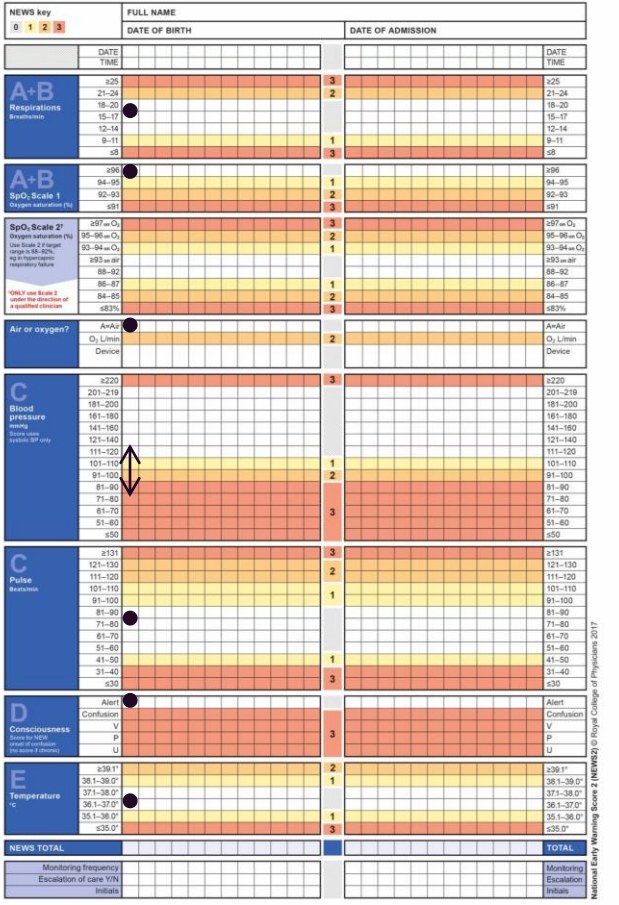
HPC:
3/7 history of acute right knee pain, 8/10. Able to weight bear, but painful movements. No trauma. X-ray R knee= NAD

O/E:
Warm, erythematous R knee, full ROM, swelling ++ compared to L knee

PMH:
hypertension, diabetes, obesity, IHD, asthma

DHx: paracetamol, salbutamol, ramipril, gliclazide, atorvastatin. Nil allergies

SHx:
Alcohol 15 units/week, smokes 10 cigs/day



Differentials

Gout

Pseudogout

Osteoarthritis

Septic arthritis

Investigations

Bedside

Joint aspiration
– MC&S
- Crystals

Bloods

FBC, U&Es, LFTs, bone profile, CRP, HbA1c, uric acid

Imaging

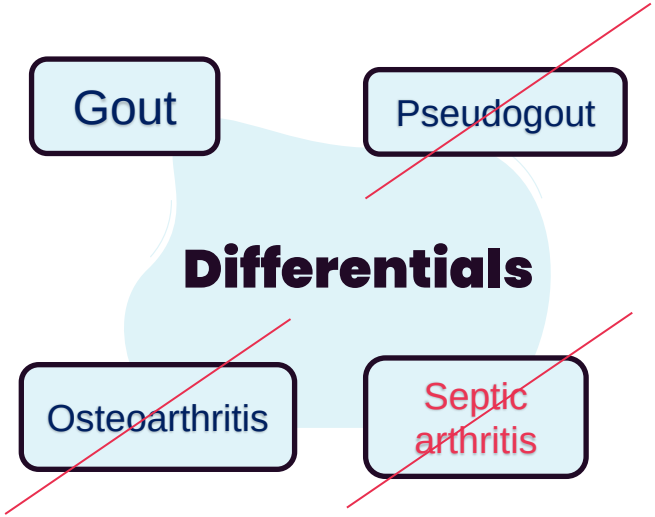
Ref: Radiopedia

If you miss out an investigation, examiner will still provide all the necessary information

Practise With Us

Joint aspirate:
Small volume, clear straw coloured aspirate
No white cells, no red cells
MC&S: no growth
Plane polarized light: negatively birefringent needle-shaped crystals

FBC: Hb 130, WCC 5.6, neuts 3.7
U&Es: Na 138, K 3.9, Ur 6.8, Cr 145, eGFR 48
Bone profile: NAD
LFTs: NAD
CRP: 35
HbA1c: 48
Uric acid: 5.4 (3.5-7.2)

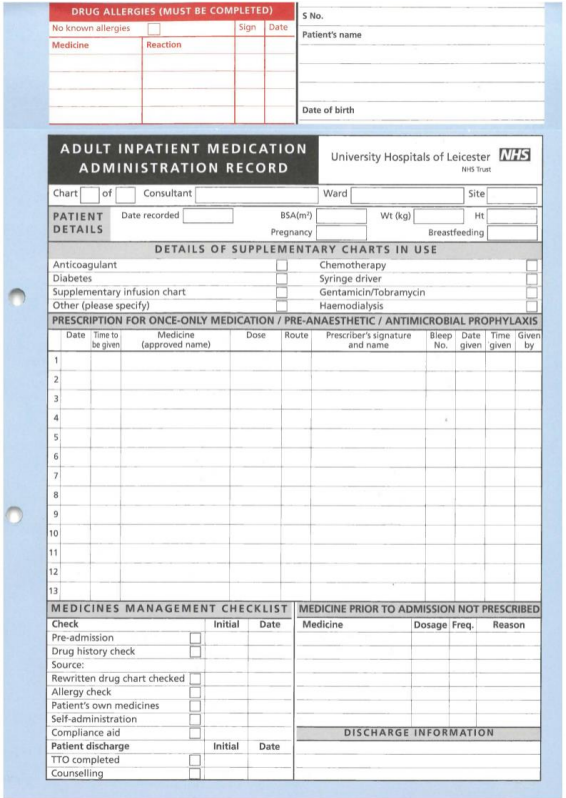


Prescribe

Gout

What do you prescribe?

Use the BNF, calculator and available information. You have 5 mins.



DRUG ALLERGIES (MUST BE COMPLETED)

No known allergies ☐ Sign Date

Medicine | Reaction

S No.

Patient's name

Date of birth

ADULT INPATIENT MEDICATION ADMINISTRATION RECORD

University Hospitals of Leicester NHS NHS Trust

Chart ☐ of ☐ Consultant Ward Site

PATIENT DETAILS

Date recorded BSA(m²) Wt (kg) Ht

Pregnancy Breastfeeding

DETAILS OF SUPPLEMENTARY CHARTS IN USE

Anticoagulant	☐	Chemotherapy	☐
Diabetes	☐	Syringe driver	☐
Supplementary infusion chart	☐	Gentamicin/Tobramycin	☐
Other (please specify)	☐	Haemodialysis	☐

PRESCRIPTION FOR ONCE-ONLY MEDICATION / PRE-ANAESTHETIC / ANTIMICROBIAL PROPHYLAXIS

	Date	Time to be given	Medicine (approved name)	Dose	Route	Prescriber's signature and name	Bleep No.	Date given	Time given	Given by
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										

MEDICINES MANAGEMENT CHECKLIST

Check		Initial	Date
Pre-admission	☐		
Drug history check	☐		
Source:			
Rewritten drug chart checked	☐		
Allergy check	☐		
Patient's own medicines	☐		
Self-administration	☐		
Compliance aid	☐		
Patient discharge		**Initial**	**Date**
TTO completed	☐		
Counselling	☐		

MEDICINE PRIOR TO ADMISSION NOT PRESCRIBED

Medicine	Dosage	Freq.	Reason

DISCHARGE INFORMATION

Prescribe with me

1. **Always fill out patient details and basics first!**

2. **What medications are used?**
   NSAIDs or colchicine first line

3. **Does the patient have any allergies?**
   Nil known drug allergies

4. **Contraindications?**
   1. Avoid NSAIDs and ACEi together
   2. Poor renal function
   3. Asthma

5. **Renal function adjustments?**
   Reduce colchicine dose/frequency if eGFR 10-50

Filter absolute contraindications then down to cautions

Prescribe with me

Indications and dose

Acute gout

By mouth

Adult
500 micrograms 2–4 times a day until symptoms relieved, total dose per course should not exceed 6 mg, do not repeat course within 3 days.

Renal impairment

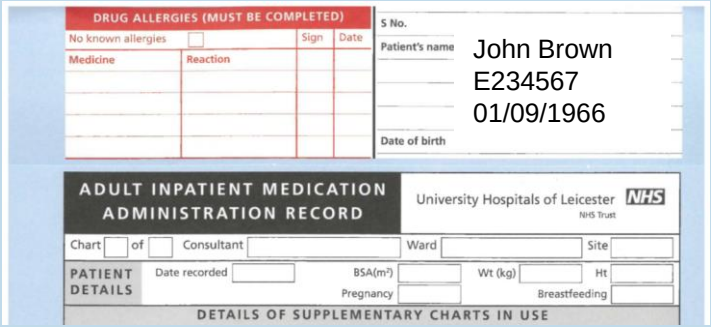
Caution if eGFR 10–50 mL/minute/1.73 m^2; avoid if eGFR less than 10 mL/minute/1.73 m^2.

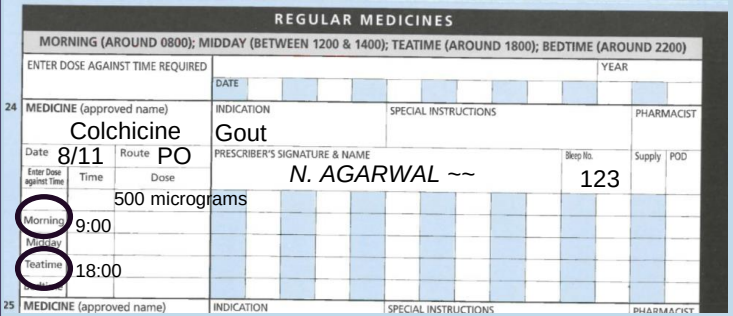
Dose adjustments

Reduce dose or increase dosage interval if eGFR 10–50 mL/minute/1.73 m^2. See Prescribing in renal impairment.

Either:

- 500 mcg 2 times a day
- 500 mcg 3 times a day





Questions about Prescribing?

Next Session...

Feedback

https://app.medall.org/feedback/feedback-flow?keyword=d8fbace658ce9d74bf65bd24&organisation=osceexpress

Thanks!

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