

New NHSGGC Vancomycin
Intermittent (Pulsed) Infusion
Prescribing Chart for Adults:
Guidance for Prescribers

June 2014



The new NHSGGC vancomycin prescribing chart

ADULT INTERMITTENT (PULSED) INFUSION VANCOMYCIN:
DRAFT PRESCRIBING, ADMINISTRATION & MONITORING CHART

NHS
Greater Glasgow and Clyde

Patient Name:
 Date of birth:
 CHI no.: *Apply patient label*

Age: Sex: M / F Weight:
 Creatinine: On: / / Height:

Source of initial dosage regimen:
 Online calculator (preferred method)
 Manual calculation
 Loading dose only, creatinine awaited

See back page for guidance on how to prescribe, administer and monitor vancomycin

PROMPT ADMINISTRATION within 1 hour of recognising sepsis reduces mortality.
 Monitor creatinine (Cr) daily. Review therapy if renal function is unstable (e.g. change in Cr of >15-20%) and seek advice.
 Signs of renal toxicity can include: ↓ urine output / oliguria or ↑ creatinine.

Actual body weight	Vancomycin loading dose
< 40 kg	750 mg in 250 mL NaCl 0.9% over 1.5 hours
40 - 59 kg	1000 mg in 250 mL NaCl 0.9% over 2 hours
60 - 90 kg	1500 mg in 500 mL NaCl 0.9% over 3 hours
> 90 kg	2000 mg in 500 mL NaCl 0.9% over 4 hours

1 Vancomycin Loading Dose Prescription Administration Record

Ensure vancomycin is prescribed 'as per chart' on the medication kardex. Ensure administration record is also completed in the kardex.

Date to be given	Time to be given	Vancomycin Dose (mg)	Prescriber's signature, PRINTED name and STATUS	Date given	Infuse at no greater than 500 mg/hr** Time started	Given by

2 Maintenance Dose Prescription Administration Record

(Initial prescribing box) (TWO signatures for administration & record EXACT time(s))

Drug	Prescribed time(s)	Date	Date	Date
VANCOMYCIN				
Dose (mg)	Other time	exact time	exact time	exact time
Route				
IV INFUSION	0800	exact time	exact time	exact time
Prescriber's signature, PRINTED name & STATUS	1200	exact time	exact time	exact time
	1400	exact time	exact time	exact time
	1800	exact time	exact time	exact time
Additional Instructions	2000	exact time	exact time	exact time
	2200	exact time	exact time	exact time
Maximum infusion rate = 500 mg/hr	Other time	exact time	exact time	exact time

CREATININE (micromol/L) RECORD DAILY

VANCOMYCIN MONITORING: Specify when level(s) due:

Take the first pre-dose sample WITHIN 48 HOURS then at least every 2-3 days; sample daily if renal function is unstable.

Date / Time of blood sample	Date	Time	Date	Time	Date	Time
Vancomycin level (mg/L)						
Action / Comments (please initial)						

Assess DAILY: the ongoing need for vancomycin; signs of toxicity

1

- Standardise practice across NHSGGC & bring vancomycin prescribing into line with gentamicin
- Improve documentation & communication of monitoring and plans

Record patient details & the initial dose calculation

ADULT INTERMITTENT (PULSED) INFUSION VANCOMYCIN:

DRAFT PRESCRIBING, ADMINISTRATION & MONITORING CHART



Patient Name: Ian Nowell

Date of birth: 13/08/1978

CHI no.: 1308789999

Affix patient label

Age: 35 **Sex:** (M) F **Weight:** 63kg.
Creatinine: 100 **On:** 16 / 06 / 14 **Height:** 5'11"

Source of initial dosage regimen:
 Online calculator (preferred method)
 Manual calculation
 Loading dose only, creatinine awaited

See back page for guidance on how to prescribe, administer and monitor vancomycin

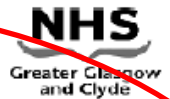
- **PROMPT ADMINISTRATION** within 1 hour of recognising sepsis reduces mortality.
- Monitor creatinine (Cr) daily. Review therapy if renal function is unstable (no change in Cr $\times 1.5$ $\times 2$) and seek

Actual body weight	Vancomycin loading dose
< 40 kg	750 mg in 250 ml NaCl 0.9% over 1.5 hours

Record patient details & the initial dose calculation

ADULT INTERMITTENT (PULSED) INFUSION VANCOMYCIN:

DRAFT PRESCRIBING, ADMINISTRATION & MONITORING CHART



Patient Name: Ian Nowell	Age: 35	Sex: <input checked="" type="radio"/> M <input type="radio"/> F	Weight: 63kg
Date of birth: 13/08/1978	Creatinine: 100	On: 16 / 06 / 14	Height: 5'11"
CHI no.: 1308789999	Source of initial dosage regimen:		
	Online calculator (preferred method) <input checked="" type="checkbox"/>		
	Manual calculation <input type="checkbox"/>		
	Loading dose only, creatinine awaited <input type="checkbox"/>		

to prescribe, administer and monitor vancomycin

Actual body weight	Vancomycin loading dose
< 40 kg	750 mg in 250 ml NaCl 0.9% over 1.5 hours

Record details of the dose source* and the parameters used; helps to identify errors and changes in creatinine from baseline.

*Use the online calculator (accessed via StaffNet) to calculate doses

Prescribe on the medicine kardex

ONCE ONLY AND PREMEDICATION DRUGS							
DATE	DRUG	DOSE	ROUTE	TIME (24hr)	SIGNATURE OF PRESCRIBER	GIVEN BY	TIME GIVEN (24hr)

Parenteral Drugs : Regular Prescription											
BEFORE ADMISSION <input type="checkbox"/> NEW DOSE <input type="checkbox"/> NEW MEDICATION <input checked="" type="checkbox"/>	A	DRUG Vancomycin								Other time	
		DOSE As charted	ROUTE IV	DATE 16/6/14	STOPPED	DATE:					0700-0900
		PRESCRIBER (PRINT & SIGN)				INITIALS:					1200-1400
		I Fixem (I FIXEM, FY1)								1600-1800	
ADDITIONAL INSTRUCTIONS / COMMENTS / PHARMACY										2200-2400	
										Other time	

Prescribe on the medicine kardex

ONCE ONLY AND PREMEDICATION DRUGS							
DATE	DRUG	DOSE	ROUTE	TIME (24hr)	SIGNATURE OF PRESCRIBER	GIVEN BY	TIME GIVEN (24hr)

DO NOT use the 'once only' section of the medicine kardex to prescribe the loading dose.

Parenteral Drugs : Regular Prescriptions							
BEFORE ADMISSION <input type="checkbox"/> NEW DOSE <input type="checkbox"/> NEW MEDICATION <input checked="" type="checkbox"/>	A	DRUG Vancomycin					
	DOSE	As charted	ROUTE	IV	DATE	16/6/14	STOPPED DATE: INITIALS:
	PRESCRIBER (PRINT & SIGN)						
	I Fixem (I FIXEM, FY1)						
ADDITIONAL INSTRUCTIONS / COMMENTS / PHARMACY							
		1200-1400					
		1600-1800					
		2200-2400					
		Other time					

Prescribe on the medicine kardex

ONCE ONLY AND		
DATE	DRUG	DOSE

Prescribe vancomycin 'as charted' in the regular section of the kardex.

DO NOT specify a dose or dose times; this could lead to errors such as duplicate dosing.

Parenteral Drugs : Regular Prescription																																								
BEFORE ADMISSION <input type="checkbox"/> NEW DOSE <input type="checkbox"/> NEW MEDICATION <input checked="" type="checkbox"/>	A	DRUG Vancomycin			STOPPED DATE: INITIALS:																																			
	DOSE	As charted	ROUTE	IV																																				
	DATE	16/6/14																																						
	PRESCRIBER (PRINT & SIGN)																																							
I Fixem		(I FIXEM, FY1)																																						
ADDITIONAL INSTRUCTIONS / COMMENTS / PHARMACY																																								
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Prescribe on the medicine kardex

ONCE ONLY AND PREMEDICATION DRUGS							
DATE	DRUG	DOSE	ROUTE	TIME (24hr)	SIGNATURE OF PRESCRIBER	GIVEN BY	TIME GIVEN (24hr)

The date on the kardex should be the date on which vancomycin is first started (i.e. the date of the loading dose)

Parenteral Drugs : Regular Pres									
BEFORE ADMISSION <input type="checkbox"/> NEW DOSE <input type="checkbox"/> NEW MEDICATION <input checked="" type="checkbox"/>	A	DRUG Vancomycin							
	DOSE	As charted	ROUTE	IV	DATE	16/6/14	DATE:	0700-0900	
	PRESCRIBER (PRINT & SIGN)		I Fixem (I FIXEM, FY1)		INITIALS:			1200-1400	
	ADDITIONAL INSTRUCTIONS / COMMENTS / PHARMACY							1600-1800	
								2200-2400	
							Other time		

Prescribe the loading dose on the vancomycin prescribing chart

See back page for guidance on how to prescribe, administer and monitor vancomycin

- **PROMPT ADMINISTRATION** within 1 hour of recognising sepsis reduces mortality.
- Monitor creatinine (Cr) daily. Review therapy if renal function is unstable (e.g. change in Cr of >15-20 %) and seek advice.
- Signs of renal toxicity can include: ↓ urine output / oliguria or ↑ creatinine.

Actual body weight	Vancomycin loading dose
< 40 kg	750 mg in 250 mL NaCl 0.9% over 1.5 hours
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60 - 90 kg	1500 mg in 500 mL NaCl 0.9% over 3 hours
>90 kg	2000 mg in 500 mL NaCl 0.9% over 4 hours

1 Vancomycin Loading Dose Prescription				Administration Record		
Ensure vancomycin is prescribed 'as per chart' on the medication kardex				Ensure administration record is also completed in the kardex		
Date to be given	Time to be given	Vancomycin Dose (mg)	Prescriber's signature, PRINTED name and STATUS	Date given	*Infuse at no greater than 500 mg/hr* Time started	Given by
16/6/14	22:15	1500 mg	I Fixem (I FIXEM, FY1)			

2 Maintenance Dose Prescription (Initial prescribing box)		Administration Record (TWO signatures for administration & record EXACT time(s))			
Drug	Prescribed time(s)	Date	Date	Date	
VANCOMYCIN					

Prescribe the loading dose on the vancomycin

Prescribe the loading dose in Box 1 of the prescribing chart. Let the nurse looking after the patient know when the dose is due.

REMEMBER: prompt administration within 1 hour of recognition of sepsis reduces mortality.

See back page for guidance on how

- **PROMPT ADMINISTRATION** within 1 hour of recognition of sepsis reduces mortality.
- Monitor creatinine (Cr) daily. Review therapy if renal function is unstable (e.g. change in Cr of >15-20% requires advice).
- Signs of renal toxicity can include: ↓ urine output or ↑ creatinine.

1 Vancomycin Loading Dose Prescription				Administration Record		
Ensure vancomycin is prescribed 'as per chart' on the medication kardex				Ensure administration record is also completed in the kardex		
Date to be given	Time to be given	Vancomycin Dose (mg)	Prescriber's signature, PRINTED name and STATUS	Date given	*Infuse at no greater than 500 mg/hr* Time started	Given by
16/6/14	22:15	1500 mg	I Fixem (I FIXEM, FY1)			

2 Maintenance Dose Prescription (Initial prescribing box)		Administration Record (TWO signatures for administration & record EXACT time(s))		
Drug	Prescribed time(s)	Date	Date	Date
VANCOMYCIN				

Prescribe the initial maintenance dose on the vancomycin prescribing chart

2 Maintenance Dose Prescription (Initial prescribing box)				Administration Record (TWO signatures for administration & record EXACT time(s))		
Drug VANCOMYCIN			Prescribed time(s)	Date	Date	Date
Dose (mg)	Route	Date started	Other time <u>10:00</u>	exact time	exact time	exact time
1000 mg	IV INFUSION	17/06/14	0800	exact time	exact time	exact time
Prescriber's signature, PRINTED name & STATUS I Fixem (I FIXEM, FY1)		See box 3 <input type="checkbox"/> Stopped <input type="checkbox"/> Date: Initials:	1200	exact time	exact time	exact time
			1400	exact time	exact time	exact time
			1800	exact time	exact time	exact time
			2000	exact time	exact time	exact time
Additional Instructions			<u>2200</u>	exact time	exact time	exact time
Maximum infusion rate = 500 mg/hr			Other time :	exact time	exact time	exact time
CREATININE (micromol/L) RECORD DAILY						
VANCOMYCIN MONITORING: Specify when level(s) due: <u>18/06/14 09:30</u> _____						
Take the first pre-dose sample WITHIN 48 HOURS then at least every 2-3 days; sample daily if renal function is unstable.						
Date / Time of blood sample	Date	Time	Date	Time	Date	Time

continue or amend on a separate box OVERLEAF if r

Prescribe the initial maintenance dose on the vancomycin prescribing chart

2 Maintenance Dose Prescription (Initial prescribing box)				Administration Record (TWO signatures for administration & record EXACT time(s))		
Drug		Prescribed time(s)		Date	Date	Date
VANCOMYCIN		Other time		exact time	exact time	exact time
Dose (mg)	Route	Date started	10:00			
1000 mg	IV INFUSION	17/06/14	0800	exact time	exact time	exact time
Prescriber's signature, PRINTED name & STATUS I Fixem (I FIXEM, FY1)		See box 3 <input type="checkbox"/> Stopped <input type="checkbox"/> Date: Initials:	1200			
			1400	exact time	exact time	exact time
			1800			
			2000	exact time	exact time	exact time
Additional Instructions		2200				
Maximum infusion rate = 500 mg/hr		Other time				
		:				
CREATININE (micromol/L) RECORD DAILY						
VANCOMYCIN MONITORING: Specify when level(s) due: 18						
Take the first pre-dose sample WITHIN 48 HOURS then at least						
Date / Time of blood sample	Date	Time				

Prescribe the maintenance dose in Box 2 of the chart, detailing the dose, date and administration times. The 'Other time' options can be used if the pre-printed times are not suitable.

Prescribe the initial maintenance dose on the vancomycin prescribing chart

2 Maintenance Dose Prescription (Initial prescribing box)				Administration Record (TWO signatures for administration & record EXACT time(s))			
Drug VANCOMYCIN			Prescribed time(s)	Date	Date	Date	continue or amend on
Dose (mg)	Route	Date started	Other time 01:00	exact time	exact time	exact time	
1000 mg	IV INFUSION	17/06/14	0800	exact time	exact time	exact time	
Prescriber's signature, PRINTED name & STATUS		See box 3 <input type="checkbox"/> Stopped <input type="checkbox"/>	1200	exact time	exact time	exact time	
I Fixem (I FIXEM, FY1)		Date:	1400	exact time	exact time	exact time	
		Initials:	1800	exact time	exact time	exact time	
			2000	exact time	exact time	exact time	
Additional Instructions			2200				OVERLEAF if r
Maximum infusion rate = 500 mg/hr			Other time 13:00				
CREATININE (micromol/L) RECORD DAILY							
VANCOMYCIN MONITORING: Specify when level(s) due: 18/06/14 09:30 _____							
Take the first pre-dose sample WITHIN 48 HOURS then at least every 2-3 days; sample daily if renal function is unstable.							
Date / Time of blood sample	Date	Time	Date	Time	Date	Time	

When using the 'other time' options, ensure that doses are prescribed in chronological order

Prescribe the initial maintenance dose on the vancomycin prescribing chart

2 Maintenance Dose Prescription (Initial prescribing box)				Administration Record (TWO signatures for administration & record EXACT time(s))		
Drug VANCOMYCIN			Prescribed time(s)	Date	Date	Date
Dose (mg)	Route	Date started	Other time	exact time	exact time	exact time
1000 mg	IV INFUSION	17/06/14	10:00 0800			
Prescriber's signature, PRINTED name & STATUS		See box 3 Stopped	<div style="background-color: red; color: white; padding: 10px; text-align: center;"> <p>In Box 2, write the date when the FIRST maintenance dose should be given. This will not always be the same date that the loading dose was given.</p> </div>			
I Fixem (I FIXEM, FY1)		Date:				
		Initials:				
Additional Instructions			continue or amend on a separate box OVERLEAF if r			
**Maximum infusion rate = 500 mg/h						
CREATININE (micromol/L) RECORD DAILY						
VANCOMYCIN MONITORING: Specify when level(s) due: 18/06/14 09:30 _____						
Take the first pre-dose sample WITHIN 48 HOURS then at least every 2-3 days; sample daily if renal function is unstable.						
Date / Time of blood sample	Date	Time	Date	Time	Date	Time

Prescribe the initial maintenance dose on the vancomycin prescribing chart

2 Maintenance Dose Prescription (Initial prescribing box)				Administration Record (TWO signatures for administration & record EXACT time(s))			
Drug VANCOMYCIN			Prescribed time(s)	Date 17/06/14	Date	Date	contin
Dose (mg) 1000 mg	Route IV INFUSION	Date started 17/06/14	Other time 10:00	exact time 10:05 BS AB	exact time	exact time	
Prescriber's signature, PRINTED name & STATUS I Fixem (I FIXEM, FY1)			0800				
			1200				
			1400				
Additional Instructions **Maximum infusion rate = 500 mg/hr**			1800				
			2000				
			2200				
			Other time :	exact time	exact time	exact time	
CREATININE (micromol/L) RECORD DAILY							a separate box OVERLEAF if r
VANCOMYCIN MONITORING: Specify when level(s) due: 18/06/14 09:30							
Take the first pre-dose sample WITHIN 48 HOURS then at least every 2-3 days; sample daily if renal function is unstable.							
Date / Time of blood sample	Date	Time	Date	Time	Date	Time	

The nurses will record the date and exact time of administration on the prescribing chart.

Prescribe the initial maintenance dose on the vancomycin prescribing chart

2 Maintenance Dose Prescription (Initial prescribing box)				Administration Record (TWO signatures for administration & record EXACT time(s))		
Drug VANCOMYCIN			Prescribed time(s)	Date	Date	Date
Dose (mg)	Route	Date started	Other time	exact time	exact time	exact time
1000 mg	IV INFUSION	17/06/14	10:00			
Prescriber's signature, PRINTED name & STATUS			120	exact time	exact time	exact time
I Fixem (I FIXEM, FY1)			140			
See box 3 <input type="checkbox"/> Stopped <input type="checkbox"/>			180			
Date:			200			
Initials:			220			
Additional Instructions			Other			
Maximum infusion rate = 500 mg/hr			:			
CREATININE (micromol/L) RECORD						
VANCOMYCIN MONITORING: Specify when level(s) due: <u>18/06/14 09:30</u>						
Take the first pre-dose sample WITHIN 48 HOURS then at least every 2-3 days; sample daily if renal function is unstable.						
Date / Time of blood sample	Date	Time	Date	Time	Date	Time

Determine the date and time of the first vancomycin level (considering the patient's renal function). Tell the nurse looking after the patient and document it on the prescribing chart.

Make sure 48 hourly dosing is prescribed clearly

1 Vancomycin Loading Dose Prescription				Administration Record		
Ensure vancomycin is prescribed 'as per chart' on the medication kardex				Ensure administration record is also completed in the kardex		
Date to be given	Time to be given	Vancomycin Dose (mg)	Prescriber's signature, PRINTED name and STATUS	Date given	*Infuse at no greater than 500 mg/hr* Time started	Given by
16/6/14	22:15	1500 mg	I Fixem (I FIXEM, FY1)			

2 Maintenance Dose Prescription (Initial prescribing box)				Administration Record (TWO signatures for administration & record EXACT time(s))				
Drug VANCOMYCIN			Prescribed time(s)	Date 16/06/14	Date 17/06/14	Date 18/06/14	continue or amend on a separate b	
Dose (mg)	Route	Date started	Other time	exact time	exact time	exact time		
500 mg	IV INFUSION	18/06/14	: 0800					
Prescriber's signature, PRINTED name & STATUS		See box 3 <input type="checkbox"/> Stopped <input type="checkbox"/> Date: Initials:	1200					
I Fixem (I FIXEM, FY1)			1400	exact time	exact time	exact time		
			1800					
			2000	exact time	exact time	exact time		
Additional Instructions 48 hourly **Maximum infusion rate = 500 mg/hr**			2200	exact time	exact time	exact time		
			Other time	exact time	exact time	exact time		
			: :					

Make sure 48 hourly dosing is prescribed clearly

1 Vancomycin Loading Dose Prescription				Administration Record		
Ensure vancomycin is prescribed 'as per chart' on the medication kardex				Ensure administration record is also completed in the kardex		
Date to be given	Time to be given	Vancomycin Dose (mg)	Prescriber's signature, PRINTED name and STATUS	Date given	*Infuse at no greater than 500 mg/hr* Time started	Given by
16/6/14	22:15	1500 mg	I Fixem (I FIXEM, FY1)			

2 Maintenance Dose Prescription (Initial prescribing box)				Administration Record (TWO signatures for administration & record EXACT time(s))				
Drug VANCOMYCIN		Prescribed time(s)		Date 16/06/14	Date 17/06/14	Date 18/06/14	continue or amend on a separate b	
Dose (mg)	Route	Date started	Other time	exact time	exact time	exact time		
500 mg								
Prescriber PRINTED name								
I Fixem								
Additional Instructions		2200		exact time	exact time	exact time		
48 hourly		Other time		exact time	exact time	exact time		
Maximum infusion rate = 500 mg/hr		:						

Add the dose frequency to the 'additional instructions' box. Communicate this to the nurse looking after the patient.

Make sure 48 hourly dosing is prescribed clearly

1 Vancomycin Loading Dose Prescription				Administration Record		
Ensure vancomycin is prescribed 'as per chart' on the medication kardex				Ensure administration record is also completed in the kardex		
Date to be given	Time to be given	Vancomycin Dose (mg)	Prescriber's signature, PRINTED name and STATUS	Date given	*Infuse at no greater than 500 mg/hr* Time started	Given by
16/6/14	22:15	1500 mg	I Fixem (I FIXEM, FY1)			

2 Maintenance Dose Prescription (Initial prescribing box)			Administration Record (TWO signatures for administration & record EXACT time(s))			
			14	Date 17/06/14	Date 18/06/14	continue or amend on a separate b
				exact time	exact time	
				exact time	exact time	
				exact time	exact time	
				exact time	exact time	
				exact time	exact time	
	Initials:	2000		exact time	exact time	
Additional Instructions 48 hourly			2200	exact time	exact time	
Maximum infusion rate = 500 mg/hr			Other time :	exact time	exact time	

Cross out the administration boxes for the days that the vancomycin should not be given. This is NOT necessary for the kardex, which does not state dose times.

See the back of the prescription chart for abbreviated monitoring details

Guidance on prescribing and monitoring vancomycin therapy

Checking the patient's vancomycin concentration

- Take a vancomycin trough (pre-dose) sample within 48 hours of starting therapy. Thereafter, sample at least every 2-3 days; sample daily if renal function is unstable. Monitor creatinine daily.
- Record the exact time of all vancomycin samples on the prescribing box AND on the sample request form.

Interpreting vancomycin results and re-prescribing

- Always check that the dosing and sampling time histories are correct before making any adjustments.
- Record the measured concentration, refer to the dose adjustment table and reassess the dose amount / dosing interval as indicated.
- Document the vancomycin concentration on the chart and the action taken in the chart and medical notes. Prescribe the new dosage regimen if a change is required.
- Contact pharmacy for further advice as necessary (e.g. changing renal function, unexpected vancomycin result)

Vancomycin trough concentration	Suggested dose change
<10 mg/L	Increase the dose by 50% and consider reducing the dosage interval. Always seek advice if you are unsure or if the current dose is > 2500 mg daily.*
10 – 15 mg/L	If the patient is responding, maintain the present dosage regimen. If the patient is seriously ill, consider increasing the dose amount or reducing the dosage interval to achieve a trough level of 15 – 20 mg/L.
15 – 20 mg/L	Maintain the present dosage regimen
>20 mg/L	Stop until <20 mg/L then seek advice

*if daily doses above 4 grams are required, please ensure pharmacy have been contacted for advice

If the measured concentration is unexpectedly HIGH or LOW

- Were dose and sample times recorded accurately?
- Was the sample taken from the line used to administer the drug?
- Has renal function declined or improved?
- Did the patient receive the full intended dose?
- Was the correct dose administered?
- Was the sample taken during drug administration?
- Does the patient have oedema or ascites?

See the back of the prescription chart for abbreviated monitoring details

Guidance on prescribing and monitoring vancomycin therapy

Checking the patient's vancomycin concentration

- Take a vancomycin trough (pre-dose) sample within 48 hours of starting therapy. Thereafter, sample at least every 2-3 days; sample daily if renal function is unstable. Monitor creatinine daily.
- Record the exact time of all vancomycin samples on the prescribing box AND on the sample request form.

Interpreting vancomycin results and re-prescribing

- Always check the result against the dosing interval as indicated.
- Document the result and the current dosage regimen. Prescribe the new dosage regimen if necessary.
- Contact pharmacy for advice if the result is unexpected.

Vancomycin concentration	Interpretation and action
<10 mg/L	Seek advice if
10 – 15 mg/L	If the patient is responding, maintain the present dosage regimen. If the patient is seriously ill, consider increasing the dose amount or reducing the dosage interval to achieve a trough level of 15 – 20 mg/L.
15 – 20 mg/L	Maintain the present dosage regimen
>20 mg/L	Stop until <20 mg/L then seek advice

*if daily doses above 4 grams are required, please ensure pharmacy have been contacted for advice

If the measured concentration is unexpectedly HIGH or LOW

- Were dose and sample times recorded accurately?
- Was the sample taken from the line used to administer the drug?
- Has renal function declined or improved?
- Did the patient receive the full intended dose?
- Was the correct dose administered?
- Was the sample taken during drug administration?
- Does the patient have oedema or ascites?

Consult the current edition of the NMSGC Therapeutics Handbook for full monitoring requirements and guidance.

Initiate and document appropriate monitoring

Prescriber's signature, PRINTED name & STATUS I Fixem (I FIXEM, FY1)	See box 3 <input type="checkbox"/> Stopped <input type="checkbox"/>	1200				
	Date: Initials:	1400	exact time	exact time	exact time	
		1800				
		2000	exact time	exact time	exact time	
Additional Instructions **Maximum infusion rate = 500 mg/hr**		2200 Other time :	exact time 22:05 LS AP	exact time 22:17 LS BB	exact time 	
CREATININE (micromol/L) RECORD DAILY			102	98	96	
VANCOMYCIN MONITORING: Specify when level(s) due: <u>18/06/14 09:30</u> <u>20/06/14 09:30</u> _____						
Take the first pre-dose sample WITHIN 48 HOURS then at least every 2-3 days; sample daily if renal function is unstable.						
Date / Time of blood sample	Date	Time	Date	Time	Date	Time
	18/06/14	09:40				
Vancomycin level (mg/L)	16.2					
Action / Comments (please initial)	Continue same dose. Recheck level 20/06 AM (IF, FY1)					
Assess DAILY: the ongoing need for vancomycin; signs of toxicity						

e or amend on a separate box OVERLEAF if required

Initiate and document appropriate monitoring

Prescriber's signature, PRINTED name & STATUS I Fixem (I FIXEM, FY1)	See box 3 <input type="checkbox"/> Stopped <input type="checkbox"/>	1200			
	Date: Initials:	1400	exact time	exact time	exact time
		1800			
			2000	exact time	exact time
Additional Instructions **Maximum infusion rate = 500 mg/hr**		2200 Other time :	exact time 22:05 LS AP	exact time 22:17 LS BB	exact time
		CREATININE (micromol/L) RECORD DAILY	102	98	96
VANCOMYCIN MONITORING: Specify when level(s) due: 18/06/14 09:30 20/06/14 09:30					
Take the first pre-dose sample when renal function is unstable.				Date	Time
Date / Time of blood sample					
Vancomycin level (mg/L)					
Action / Comments (please include any adverse effects)					

or amend on a separate box OVERLEAF if required

Check creatinine daily and record the result on the prescribing chart. Consider the impact of any changes in creatinine on the required dose, frequency of monitoring and suitability of ongoing vancomycin.

Initiate and document appropriate monitoring

Prescriber's signature, PRINTED name & STATUS I Fixem (I FIXEM, FY1)	See box 3 <input type="checkbox"/> Stopped <input type="checkbox"/>	1200	
	Date:	1400	ex
	Initials:	1800	
		2000	ex
Additional Instructions **Maximum infusion rate = 500 mg/hr**		2200 Other time :	ex
CREATININE (micromol/L) RECORD DAILY			
VANCOMYCIN MONITORING: Specify when level(s) due: 18/06/14			
Take the first pre-dose sample WITHIN 48 HOURS then at least every			
Date / Time of blood sample	Date	Time	Date
	18/06/14	09:40	
Vancomycin level (mg/L)	16.2		
Action / Comments (please initial)	Continue same dose. Recheck level 20/06 AM (IF, FY1)		
Assess DAILY: the ongoing need for vancomycin, signs of toxicity			

Record details of the vancomycin blood sample date, the actual time it was taken and the result, once available. Record the action taken and any other comments in the relevant box.

Note: if renal function is stable, advise the nurse to give the next dose before the vancomycin result is available. If renal function is deteriorating, withhold vancomycin until the result is available and then advise accordingly

Initiate and document appropriate monitoring

Determine the date and time of the next vancomycin level (considering the patient's renal function and the previous level).
Tell the nurse looking after the patient and document it on the prescribing chart.

Prescriber's PRINTED name							e or amend on a separate box OVERLEAF if required
I Fixer				exact time		exact time	
Additional				exact time		exact time	
**Maximum			2:05	exact time	22:17	exact time	
			P	LS	BB		
				98		96	
VANCOMYCIN MONITORING: Specify when level(s) due: <u>18/06/14 09:30</u> <u>20/06/14 09:30</u>							
Take the first pre-dose sample WITHIN 48 HOURS then at least every 2-3 days; sample daily if renal function is unstable.							
Date / Time of blood sample	Date	Time	Date	Time	Date	Time	
Vancomycin level (mg/L)	18/06/14	09:40					
Action / Comments (please initial)	Continue same dose. Recheck level 20/06 AM (IF, FY1)						
Assess DAILY: the ongoing need for vancomycin; signs of toxicity							

Initiate and document appropriate monitoring

Prescriber's signature, PRINTED name & STATUS I Fixem (I FIXEM, FY1)	See box 3 <input type="checkbox"/> Stopped <input type="checkbox"/>	1200			
	Date: Initials:	1400	exact time	exact time	exact time
		1800			
		2000	exact time	exact time	exact time
Additional Instructions **Maximum infusion rate = 500 mg/hr**		2200 Other time :	exact time 22:05 LS AP	exact time 22:17 LS BB	exact time 9
CREATININE (r		If a dose is to be withheld (e.g. as renal function has deteriorated), endorse kardex code '9' in the relevant administration box on the prescription chart.			96
VANCOMYCIN MONITORING: Spe Take the first pre-dose sample WIT					on is unstable.
Date / Time of blood sample					Time
Vancomycin level (mg/L)					
Action / Comments (please initial)		Recheck level 20/06 AM (IF, FY1)			
Assess DAILY: the ongoing need for vancomycin; signs of toxicity					

e or amend on a separate box OVERLEAF if required

Remember; each prescription box only lasts for a maximum of 3 days therapy

2 Maintenance Dose Prescription (Initial prescribing box)				Administration Record (TWO signatures for administration & record EXACT time(s))				
Drug	Dose (mg)	Route	Date started	Prescribed time(s)	Date	Date	Date	
VANCOMYCIN					exact time	exact time	exact time	
					exact time	exact time	exact time	
					exact time	exact time	exact time	
					exact time	exact time	exact time	
					exact time	exact time	exact time	
					exact time	exact time	exact time	
				2-3 days; sample daily if renal function is unstable.				
					Date	Time	Date	Time
Assess DAILY: the ongoing need for vancomycin; signs of toxicity								

Ensure that you re-prescribe ongoing therapy in a new prescription box when necessary, EVEN IF THERE HAS NOT BEEN A DOSE CHANGE. Failure to do this may result in missed doses.

Refer to the IVOST policy for guidance on the need for ongoing IV therapy and oral switch options.

Prescribe in a new prescription box to continue/amend

Patient Name: Ian Nowell

CHI no.: 1308789999

- See back page for guidance on how to prescribe, administer and monitor vancomycin
- Monitor creatinine (Cr) daily. Seek advice if renal function is unstable (e.g. change in Cr of >15-20 %).
- Signs of renal toxicity can include: ↓ urine output / oliguria or ↑ creatinine. Assess ongoing need for vancomycin DAILY.

2 Maintenance Dose Prescription (Initial prescribing box)			
Drug VANCOMYCIN			Prescribed time(s)
Dose (mg)	Route	Date started	Other time
1000 mg	IV INFUSION	17/06/14	10:00 0800
Prescriber's signature, PRINTED name & STATUS I Fixem (I FIXEM, FY1)		See box 3 <input checked="" type="checkbox"/>	1200
		Stopped <input type="checkbox"/>	1400
		Date: 20/06/14	1800
		Initials: IF (FY1)	2000
Additional Instructions			2200 Other time :
Maximum infusion rate = 500 mg/hr			

3 Maintenance Dose Prescription (Additional prescribing box)			
Drug VANCOMYCIN			Prescribed time(s)
Dose (mg)	Route	Date started	Other time
1000 mg	IV INFUSION	17/06/14	10:00 0800
Prescriber's signature, PRINTED name & STATUS I Fixem (I FIXEM, FY1)		See box 4 <input type="checkbox"/>	1200
		Stopped <input type="checkbox"/>	1400
		Date:	1800
		Initials:	2000
Additional Instructions			2200 Other time :
Maximum infusion rate = 500 mg/hr			

Prescribe in a new prescription box to continue/amend

Patient Name: Ian Nowell

CHI no.: 1308789999

- See back page for guidance on how to prescribe, administer and monitor vancomycin
- Monitor creatinine (Cr) daily (target < 20%).
- Signs of renal toxicity can include oliguria, anuria, and a rise in serum creatinine. See back page for vancomycin DAILY.

Patient details MUST be added to the top of the page EACH TIME a new page is started.

2 Maintenance Dose Prescription (Initial prescribing box)				2 Maintenance Dose Prescription (Continuation box)			
Drug			Prescribed time(s)	Drug			Prescribed time(s)
VANCOMYCIN				VANCOMYCIN			
Dose (mg)	Route	Date started	Other time	Dose (mg)	Route	Date started	Other time
1000 mg	IV INFUSION	17/06/14	10:00	1000 mg	IV INFUSION	17/06/14	10:00
Prescriber's signature, PRINTED name & STATUS I Fixem (I FIXEM, FY1)		See box 3 <input checked="" type="checkbox"/> Stopped <input type="checkbox"/> Date: 20/06/14 Initials: IF (FY1)	1200	Prescriber's signature, PRINTED name & STATUS I Fixem (I FIXEM, FY1)		See box 4 <input type="checkbox"/> Stopped <input type="checkbox"/> Date: Initials:	1200
			1400				1400
			1800				1800
			2000				2000
Additional Instructions			2200	Additional Instructions			2200
Maximum infusion rate = 500 mg/hr			Other time :	**Maximum infusion rate = 500 mg/hr**			Other time :

Prescribe in a new prescription box to continue/amend

Patient Name: Ian Nowell

CHI no.: 1308789999

- See back page for guidance on how to prescribe, administer and monitor vancomycin
- Monitor creatinine (Cr) daily. Seek advice if renal function is unstable (e.g. change in Cr of >15-20 %).
- Signs of renal toxicity can include: ↓ urine output

If a new maintenance dose is needed (e.g. new dose or run out of administration spaces) discontinue the current prescription box. Score through the box and tick 'see box x', adding your initials and the date.

2 Maintenance Dose Prescription (Initial prescribing box)					
Drug VANCOMYCIN					Prescribed time(s)
Dose (mg)	Route	Date started			Other time
1000 mg	IV INFUSION	17/06/14			10:00
Prescriber's signature, PRINTED name & STATUS		See box 3 <input checked="" type="checkbox"/> Stopped <input type="checkbox"/>			0800
I Fixem (I FIXEM, FY1)		Date: 20/06/14	1800	I Fixem (I FIXEM, FY1)	Date:
		Initials: IF (FY1)	2000		Initials:
Additional Instructions			2200	Additional Instructions	2200
Maximum infusion rate = 500 mg/hr			Other time		Other time
			:		:

Prescribe in a new prescription box to continue/amend

Patient Name: Ian Nowell

CHI no.: 1308789999

- See back page for guidance on how to prescribe, administer and monitor vancomycin
- Monitor creatinine (Cr) daily. Seek advice if renal function is unstable (e.g. change in Cr of >15-20 %).
- Signs of renal toxicity can include: ↓ urine output / oliguria or ↑ creatinine. Assess ongoing need for vancomycin DAILY.

2 Maintenance Dose Prescription (Initial prescribing box)	
Drug	Prescribed
VANCOMYCIN	
Dose	
Route	
Date started	
Other time	
1000 mg	
IV INFUSION	
17/06/14	
10:00	
0800	
1200	
1400	
1800	
2000	
Additional Instructions	2200
	Other time
Maximum infusion rate = 500 mg/hr	:

Re-prescribe in the next maintenance dose prescription box. THERE IS NO NEED to alter the kardex, which should state 'as charted' with no dose or administration time.

3 Maintenance Dose Prescription (Additional prescribing box)			
Drug			Prescribed time(s)
VANCOMYCIN			
Dose (mg)	Route	Date started	Other time
1000 mg	IV INFUSION	17/06/14	10:00
Prescriber's signature, PRINTED name & STATUS		See box 4 <input type="checkbox"/>	1200
I Fixem (I FIXEM, FY1)		Stopped <input type="checkbox"/>	1400
		Date:	1800
		Initials:	2000
Additional Instructions			2200
			Other time
Maximum infusion rate = 500 mg/hr			:

Prescribe in a new prescription box to continue/amend

Patient Name: Ian Nowell

CHI no.: 1308789999

- See back page for guidance on how to prescribe, administer and monitor vancomycin
- Monitor creatinine (Cr) daily. Seek advice if renal function is unstable (e.g. change in Cr of >15-20 %).
- Signs of renal toxicity can include: ↓ urine output / oliguria or ↑ creatinine. Assess ongoing need for vancomycin DAILY.

2 Maintenance Dose Prescription (Initial prescribing box)			
Drug VANCOMYCIN			Prescribed time(s)
Dose (mg)	Route	Date started	Other time
1000 mg	IV INFUSION	17/06/14	10:00 0800
Prescriber's signature, PRINTED name & STATUS		See box 4 Stopped <input type="checkbox"/>	
I Fixem (I FIXEM, FY1)		Date:	
		Initials:	
Additional Instructions			
Maximum infusion rate = 500 mg/hr			

3 Maintenance Dose Prescription (Additional prescribing box)			
Drug VANCOMYCIN			Prescribed time(s)
Dose (mg)	Route	Date started	Other time
1000 mg	IV INFUSION	17/06/14	10:00 0800
Prescriber's signature, PRINTED name & STATUS		See box 4 <input type="checkbox"/>	
		Stopped <input type="checkbox"/>	
		Date:	
		Initials:	
			1200
			1400
			1800
			2000
			2200
			Other time
			:

Subsequent prescribing boxes should show the date when the CURRENT maintenance dose was started (17/6 in this case as the maintenance dose has not changed since then).

Indicate a stop on the medicine kardex AND the prescription chart

Parenteral Drugs : Regular Prescription								
BEFORE ADMISSION <input type="checkbox"/> NEW DOSE <input type="checkbox"/> NEW MEDICATION <input checked="" type="checkbox"/>	A	DRUG Vancomycin	DOSE As charted	ROUTE IV	DATE 16/6/14	DATE: 21/06/14		
			PRESCRIBER (PRINT & SIGN) I Fixem (I FIXEM, FY1)			INITIALS: IF (FY1)		
			ADDITIONAL INSTRUCTIONS / COMMENTS / PHARMACY					
							STOPPED	
		Other time						
		0700-0900		LS/AP	AP/IR	LS/AP	IR/LS	LS/AP
		1200-1400						
		1600-1800						
		2200-2400		LS/AP	AP/IR	LS/AP	IR/LS	LS/AP
		Other time						

3 Maintenance Dose Prescription (Additional prescribing box)				Administration Record (TWO signatures for administration & record EXACT time(s))		
Drug VANCOMYCIN			Prescribed time(s)	Date	Date	Date
Dose (mg) 1000 mg	Route IV INFUSION	Date started 17/06/14	Other time 10:00 0800	exact time 09:55 IR LS	exact time 10:55 IR LS	exact time
Prescriber's signature, PRINTED name & STATUS I Fixem (I FIXEM, FY1)		See box 4 <input type="checkbox"/> Stopped <input checked="" type="checkbox"/> Date: 21/06/14 Initials: IF (FY1)	1200	exact time	exact time	exact time
			1400	exact time	exact time	exact time
			1800	exact time	exact time	exact time
			2000	exact time 22:15 LS AP	exact time	exact time
Additional Instructions **Maximum infusion rate = 500 mg/hr**			2200	exact time	exact time	exact time
			Other time :	exact time	exact time	exact time
CREATININE (micromol/L) RECORD DAILY						

continue or amend on a new box BELOW

Indicate a stop on the medicine kardex AND the prescription chart

Parenteral Drugs : Regular Prescription										
BEFORE ADMISSION <input type="checkbox"/> NEW DOSE <input type="checkbox"/> NEW MEDICATION <input checked="" type="checkbox"/>	A	DRUG	Vancomycin							
	DOSE	As charted	ROUTE	IV	DATE	16/6/14	DATE:	21/06/14	Other time	
	PRESCRIBER (PRINT & SIGN)	I Fixem (I FIXEM, FY1)								
ADDITIONAL INSTRUCTIONS / COMMENTS / PHARMACY										
		0700-0900		LS/AP	AP/IR	LS/AP	IR/LS	LS/AP		
		1200-1400								

To stop, discontinue the vancomycin on the kardex AND the prescription chart.

3 Maintenance Dose Prescription (Additional prescribing box)			Administration Record (TWO signatures for administration & record EXACT time(s))			
Drug	VANCOMYCIN		Prescribed time(s)	Date	Date	Date
Dose (mg)	Route	Date started	Other time	exact time	exact time	exact time
1000 mg	IV INFUSION	17/06/14	10:00	09:55	10:55	
Prescriber's signature, PRINTED name & STATUS		See box 4 <input checked="" type="checkbox"/> Stopped	1200	IR LS	IR LS	
I Fixem (I FIXEM, FY1)		Date: 21/06/14	1400	exact time	exact time	exact time
		Initials: IF (FY1)	1800			
Additional Instructions			2000	exact time	exact time	exact time
			2200	22:15		
			Other time	LS AP		
			:	exact time	exact time	exact time
Maximum infusion rate = 500 mg/hr						
CREATININE (micromol/L) RECORD DAILY						

continue or amend on a new box BELOW

Indicate a stop on the medicine kardex AND the prescription chart

Parenteral Drugs : Regular Prescription						
BEFORE ADMISSION <input type="checkbox"/> NEW DOSE <input type="checkbox"/> NEW MEDICATION <input checked="" type="checkbox"/>	A	DRUG	Vancomycin	ROUTE	IV	DATE
		DOSE	As charted			16/6/14
		PRESCRIBER (PRINT & SIGN)	I Fixem (I FIXEM, FY1)		DATE:	21/06/14
		ADDITIONAL INSTRUCTIONS / COMMENTS / PHARMACY			INITIALS:	IF (FY1)
				STOPPED		
				Other time		
				0700-0900	LS/AP	AP/IR
				1200-1400	LS/AP	IR/LS
				1600-1800	LS/AP	IR/LS
				2200-2400	LS/AP	AP/IR

Date and initial the stop boxes on both the kardex AND the prescription chart.

3	Mainte (Additio	EXACT time(s)
Drug		
VANCOM		
Dose (mg)	Route	Date started
1000 mg	IV INFUSION	17/06/14
Prescriber's signature, PRINTED name & STATUS		Other time
I Fixem (I FIXEM, FY1)		10:00
Stopped <input checked="" type="checkbox"/> Date: 21/06/14 Initials: IF (FY1)		0800
Additional Instructions		1200
Maximum infusion rate = 500 mg/hr		1400
		1800
		2000
		2200
		Other time
		:
CREATININE (micromol/L) RECORD DAILY		

Indicate a stop on the medicine kardex AND the prescription chart

Parenteral Drugs : Regular Prescription				
BEFORE ADMISSION <input type="checkbox"/> NEW DOSE <input type="checkbox"/> NEW MEDICATION <input checked="" type="checkbox"/>	A	DRUG	Vancomycin	
		DOSE	As charted	DATE 16/6/14
		PRESCRIBER (PRINT & SIGN)	I Fixem (I FIXEM, FY1)	
		ADDITIONAL INSTRUCTIONS / COMMENTS / PHARMACY		
			STOPPED	

Score through the vancomycin prescription on the kardex with the word 'STOP'.

Score through all pages of the vancomycin prescription chart with the word 'STOP'.

3 Maintenance Dose Prescription (Additional prescribing box)	
Drug VANCOMYCIN	
Dose (mg) 1000 mg	Route IV INFUSION
Date started 17/06/14	Prescriber's signature, PRINTED name & STATUS I Fixem (I FIXEM, FY1) Date: 21/06/14 Initials: IF (FY1)
Additional Instructions **Maximum infusion rate = 500 mg/hr**	Prescriber's signature, PRINTED name & STATUS I Fixem (I FIXEM, FY1) Date: 21/06/14 Initials: IF (FY1)
CREATININE (micromol/L) RECORD DAILY	

Other time	exact time	exact time	exact time
10:00	09:55	10:55	
1200	IR LS	IR LS	
1400			
1800			
2000	22:15		
2200	LS AP		
Other time			

continue or amend on a new box BELOW

See the back of the chart for guidance notes

Guidance on how to use the chart

For NURSING STAFF

- CHECK kardex before administration to ensure vancomycin hasn't been discontinued.
- Date and **exact time** of administration must be completed in the 'Administration Record' section of the chart. Administration of all doses must also be recorded on the kardex.
- TWO nurses' signatures are required to provide an independent check of preparation and also to check the chart and kardex before administration.

For PRESCRIBERS

On the kardex

- Prescribe vancomycin in the regular parenteral section of the kardex "as charted".
- **Do not specify a dose or administration time on the kardex.**

On the prescription chart

- Prescribe the calculated loading dose in box 1 of the prescription chart. Do NOT use the 'Once Only' section of the kardex to prescribe the loading dose.
- Prescribe the calculated maintenance dose in box 2 of the prescription chart specifying the dose and administration time(s).
- Determine the required date and time of the first vancomycin level (based on the patient's current renal function), communicate this to nursing staff and document it in the vancomycin monitoring section of the chart.
- Record creatinine DAILY on the chart.
- If a new maintenance dose prescription box is required (due to change in dosage regimen or due to space), discontinue the current maintenance dose prescription box by scoring through and also ticking the 'see box x', adding a signature and date. Re-prescribe in the next maintenance dose prescription box. *There is no need to alter the kardex, which should state "as charted"*.
- If a dose has to be withheld, endorse kardex code 9 in the administration box on the prescription chart.
- When stopping therapy, discontinue vancomycin on the kardex *and* on the prescription chart (by ticking the 'stopped' box). In addition, score through all pages of the chart with the word 'STOP'.