Raigmore Hospital
Intensive Care Unit
Vancomycin
Continuous Infusion Prescription

Patient's Name……………………………..
Unit Number…………………………………
CHI………………………………………….
DOB…………………………………………
(or patient's label)

NHS Highland

LOADING DOSE

All patients should receive one loading dose based on patient's **actual weight.**

The infusion volumes below are for central administration only. If giving by peripheral administration reduce concentration to 5mg/ml

Weight	Date	Time	Drug	Dose	Rate of infusion	Duration of Infusion	Prescribers Signature	Given by	Checked by	Time given
<40kg			Vancomycin	750mg in 100mls	100ml/hr	1 hour				
40-59kg			Vancomycin	1g in 100mls	50ml/hr	2 hours				
60-90kg			Vancomycin	1.5g in 250mls	83ml/hr	3 hours				
>90kg			Vancomycin	2g in 250mls	62ml/hr	4 hours				

MAINTENANCE INFUSION

For dosing guidance please see over

Central administration: the final concentration should not exceed 10mg/ml.
Peripheral administration: the final concentration should not exceed 5mg/ml.

Date	Time	Drug/Fluid	Vancomycin level	Peripheral or Central	Dose	Volume	Rate	Prescribers Signature	Date	Time	Given by	Checked by
		Vancomycin IV in sodium chloride 0.9%		/								
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DOSING GUIDANCE

Start the maintenance intravenous infusion immediately after the loading dose. The dose is dependant on renal function. Prescribe the dose as diluted in 250ml 0.9% sodium chloride and infused continuously over 12 hours – infusion rate is 21ml/hr.
Estimate the patient's creatinine clearance using the formula given below (using ideal body weight if actual weight > 20% over ideal):

- Ideal body weight is calculated using patient height as follows:
  i. Males: 50 kg + 2·3 kg for every inch above 5 feet (or 2·5 cm above 152 cm)
  ii. Females: 45·5 kg + 2·3 kg for every inch above 5 feet (or 2·5 cm above 152 cm)

$$\text{Creatinine Clearance (ml/min)} = \frac{(140 - \text{age(years)}) \times \text{weight (kg)}}{\text{Creatinine (micromoles/l)}}$$

Multiply figure obtained above by 1.23 for males and 1.04 for females

Creatinine clearance (ml/min)	**Dose to be prescribed in each 250 ml infusion bag** administer over 12 hours.
<30 or CVVH/CVVHDF	250mg
30-39	375 mg
40-54	500 mg
55-74	750 mg
75-89	1000 mg
90-110	1250mg
>110	1500mg

Central administration: the final concentration should not exceed 10mg/ml.
Peripheral administration: the final concentration should not exceed 5mg/ml.
Glucose 5% may also be used for dilution.

DOSE ADJUSTMENT

Request a serum level at **0600 hrs** each day, or as advised by the pharmacist. On week days, the ward pharmacist (page 6010) will advise on dosage adjustments. Out of hours or at weekends, please use the following guidelines after 24 hours of treatment have been administered.

Vancomycin conc.	**Suggested dosage change**
< 15 mg/L	Increase the 12 hourly dose by 500mg
15 - 20mg/L	Increase the 12 hourly dose by 250mg
20- 25 mg/L	**No change**
25 -30 mg/L	Recheck at 12 hours. If repeat level is >25mg/l, decrease the 12 hourly dose by 250mg*
> 30 mg/L	Stop until <25mg/L then re-start at a lower dose

***If the patient is only receiving 500 mg /day, reduce the dose to 250 mg /day**

ADDITIONAL INFORMATION

Discharge from ITU
On discharge from Intensive Care, the patient should revert to conventional intermittent dosing as ward areas do not have sufficient infusion pumps. Seek advice on dosage regimen from pharmacist