Question 7

You are a doctor at General Hospital.

Bleep number: 3141 GMC number: 112 358 131

Patient details

Patient name: Matthew Smith Date of birth: 14/3/1954 Patient number: 883 014 012

History

Matthew Smith presents to Emergency Department via ambulance with slurred speech, left sided facial droop, and weakness in his right arm and leg.

Investigations

He has had a CT head which detected no abnormalities.

Task

A senior neurologist has reviewed the patient and instructed you to prescribe the appropriate thrombolytic treatment.

General	Hospital	Char	t No. ^{1 of 1}			
CODES FOR NON-ADMINISTRATION OF PRESCRIBED MEDICINE In situations where a dose of a medicine is not administered and			. Matthew Smit	h		
the matter cannot be resolved a) Record on the medicine ch	Patient Number 883 014 012					
the reason why the dose was b) TAKE APPROPRIATE AC						
PROMPTLY so that patient treatment is not compromised. For further details refer to the 'Purple Booklet'		Ward	10	AFFIX		
Patient refuses 1 Patient not present 2 on ward Medicine not available 3 (obtain as soon as practicable) Instructions not clear 4	Unable to swallow 8 Vomiting/nausea 9	DOB	ADDI14	/3/1954		
	Time varied on Dr's instructions 10 Once only/PRN 11 medication given	Date of Admis	sion	1/1/23		
or legal Patient Self-Administered 5	To be specified in the Nursing Care Plan	Consultant	Dr Brown			
Medicine Nil by mouth 6 Asleep/drowsy 7	Possible drug reaction/ 12 side effect Other reasons 13	Weight 80	Surf	ace Area		
DRUG SEN No known drug allte						
	ONCE	ONLY				

Date	Time	Pharmacy	Drug (Approved Name)	Dose	Route	Doctor's Signature NAME	Time Given	Given	Checke
1.1.23 12:00			Alteplase	7 mg	IV	A Brown			_
	- * J								
								1	9
									1
							1.1		2
	-								
									21.1

OTHER CHARTS IN USE

Date	Type of Chart	Details	Signature NAME
1.1.1			

1/1/23 Alteplase 65 mg Sodium 65ml IV 65ml/hr chloride	Drug Total Diluent Total Route amount volume of drug	Once only infusions	Date of b	Forenam	Surname	Patient n	Drug Infusion Chart Affix pat	
	Infusion rate	Address: 12 Lunar Crescent, NE1 3DR	Date of birth: 14/3/19	Forename: Matthew	Surname: Smith	Patient number: 883 014 012	Affix patient label or complete details below	
	Device number	ent, NEI 3D	1954			4 <i>0</i> 12	mplete detail	
	Prepared/ checked by	Ř					s below	
	Time given							

Acute ischaemic stroke (under specialist neurology physician only)

By intravenous infusion

Adult 18–79 years

Initially 900 micrograms/kg (max. per dose 90 mg), treatment **must** begin within 4.5 hours of symptom onset, to be given over 60 minutes, the initial 10% of dose is to be administered by intravenous injection and the remainder by intravenous infusion.

Directions for administration

For *intravenous infusion* (*Actilyse*[®]), manufacturer advises give intermittently in Sodium chloride 0.9%; dissolve in water for injections to a concentration of 1 mg/mL or 2 mg/mL and infuse intravenously; alternatively dilute the solution further in the infusion fluid to a concentration of not less than 200 micrograms/mL; not to be infused in glucose solution.

Calculations for our Patient

900mcg * 80 kg = 72,000 mcg / 72mg total dose.

- 10% of total dose 7.2mg for IV injection.
- Round to 7mg.
- According to directions for administration dissolve in either 7 or 14 ml of sodium chloride 0.9%.
 - $\circ~$ Could dilute up to 35ml but no indication to do so.
- 90% of total dose 64.8mg for IV infusion over 60 minutes.
- Round to 65mg.
- According to directions for administration dissolve in either 65 or 130 ml of sodium chloride 0.9%.
 - $\circ~$ Could dilute in up to 325 ml but no indication to do so.
- Rate calculated by (volume of your solution)/ 1 hr