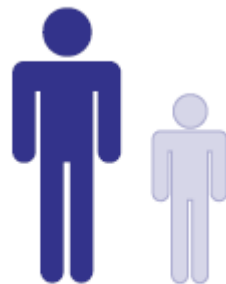


Adult Daily Prescription & Balance Chart 2014



Adult
From their 16th birthday

Aims and outcomes of session.

Aim:

- ❖ To provide guidance on correctly completing the adult daily fluid prescription & balance chart.

Outcomes:

Demonstrate the ability to:

- ❖ calculate and complete fluid prescription.
- ❖ correctly administer fluids.
- ❖ correctly complete a fluid balance chart.

Front

Daily Fluid Balance & Prescription Chart

Write in CAPITAL LETTERS or use addressograph

Surname: _____

First names: _____

Consultant: _____ Ward: _____

Hospital no: _____ QB: _____

Hospital _____

Ward _____

Date _____

June 2014

Special Instructions:

For Hourly, Cumulative fluid recording today

Yes ☐

Adult



From their 16th birthday

FLUID INPUT (ml)

FLUID OUTPUT (ml)

	ORAL FLUID				INTRAVENOUS FLUID & MEDICINES*												URINE				BOWEL				COMMENTS		Hourly Amount OUT	Grand Total OUT	Overall Balance	Initials		
	ORAL		ENTERAL		No.1 Site		No.2 Site		No.3 Site		No.4 Site		Hourly Amount IN		Grand Total IN		Amount		Total		Amount		Total									
	Fluid Type	Amount	Total	Fluid Type	Amount	Total	Fluid Type	Amount	Total	Fluid Type	Amount	Total	Fluid Type	Amount	Total	Fluid Type	Amount	Total	Fluid Type	Amount	Total	Fluid Type	Amount	Total	Fluid Type	Amount					Total	
08.00																																
09.00																																
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04.00																																
05.00																																
06.00																																
07.00																																



INTAKE

	8am	Day	8pm	Night	8am	Total
Oral						
Enteral						
Intravenous						
Grand Total IN						

OUTPUT

	8am	Day	8pm	Night	8am	Total
Urine						
Bowel						
Other						
Other						
Grand Total OUT						

24 hour Fluid Balance (ml)

Balance

ADULT

Write in CAPITAL LETTERS or use addressograph

Surname:

First names:

Consultant:

Hospital:

Ward and Care Unit:

Referral by:

Referral date:

Referral time:

Referral time:

Referral time:

Referral time:

Referral time:

Referral time:

Referral time:

Referral time:

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Referral time:

Referral time:

Referral time:

Referral time:

Referral time:

Referral time:

Referral time:

Recent Weight _____ kg

Weighed ☐ / /

Estimated ☐

Yesterday's rate	Grand total in	Grand total out	Balance

Solution	Composition of common intravenous solutions (mmol/L)				
	[Na ⁺]	[Cl ⁻]	[Glucose]	[Lactate]	[K ⁺]
5% Glucose (Dextrose)	0	0	278	-	-
0.45% Sodium Chloride	77	77	0	-	-
0.45% Sodium Chloride + 5% Glucose (Dextrose)	77	77	278	-	-
0.9% Sodium Chloride	154	154	0	-	-
Compound Sodium Lactate - Hartmann's solution	131	111	0	29	5
Plasma substitutes: gelatins, etherified starches	140 - 154	118 - 154	0	0 - 30	0 - 5
Plasma	135 - 145	95 - 108	3.5 - 7.0	0.4 - 2.2	3.5 - 5.0

Indications - all that apply: Fluid **B**olus volume, **D**eficit, **O**n-going loss volume, **M**aintenance, **D**rug **P**rescription

↓	Date	Time	Volume	Infusion Fluid/Type	Additives *	Rate ml/hour Range	Prescriber's Signature	Administered By	Checked By	Batch/Lot No. & Expiry Date	Pump Details **	Start Time	Finish Time	Volume given
				a										
				b										
				c										
				d										
				e										
				f										
				g										
				h										
				i										
				j										

FLUID PRESCRIPTION ADVICE FOR ADULTS*

Fluid therapy should involve the consideration of:-

- **RESUSCITATION** - **B** Fluid bolus volume for hypovolaemic shock.
- **ROUTINE MAINTENANCE** - **M** Varies with clinical status.
- **REPLACEMENT** - Correction of any obvious fluid deficit - **D** and ongoing losses - **O** (e.g. vomiting, drainage, insensible, diarrhoea).

- **REDISTRIBUTION** - Patients with sepsis, severe renal, liver or cardiac disease, malnutrition, refeeding issues or post-operative.
- **REASSESSMENT** - Include clinical assessments & glucose and U&E at least 24 hourly.
- Use the **oral** or **enteral** route whenever possible for giving fluids.
- Daily insensible loss = 500 - 800 ml.

Types of Fluid

Sodium chloride 0.9% provides the most important extracellular ions. It is indicated when **RESUSCITATION** by a fluid bolus is needed for shock and in sodium depletion. The administration of large volumes may give rise to sodium accumulation, oedema, and hyperchloraemic acidosis. Compound sodium lactate (Hartmann's solution; contains 5 mmol/L of potassium) can be used instead of isotonic sodium chloride solution during or after surgery, or in the initial management of the injured or wounded. It may reduce the risk of hyperchloraemic acidosis. 5% glucose (dextrose) is an important source of free water for maintenance, but should be used with caution as excessive amounts may cause dangerous hyponatraemia, especially in the elderly.

ROUTINE MAINTENANCE fluids replace the normal fluid content of oral food intake, insensible loss & urinary output and are prescribed to provide optimal hydration in patients unable to fully use the oral or enteral route. Maintenance fluids should take into account the volume of fluid to deliver IV medications (antibiotics, analgesics). The total (oral, IV drugs and prescribed fluids) volume prescribed in healthy adults (without excess fluid losses) should be of the order of 30 ml/kg/day up to a maximum of 2.5L. Consider prescribing less fluid (e.g. 20-25 ml/kg/day) for patients who are older, frail, have renal impairment or cardiac failure. Consider using ideal body weight for obese patients.

Sodium requirement - 1 to 2 mmol/kg/day, so it is rarely necessary to give more than 1 litre of sodium chloride 0.9% or Hartmann's solution per day for maintenance IV fluids. Antibiotic and analgesic infusions may already provide some of this. Potassium requirement - 1 mmol/kg/day, adjusted according to the serum potassium. Phosphate, Magnesium - monitor & correct.

Many patients have specific needs to cover **REPLACEMENT** and/or **REDISTRIBUTION** of fluid and electrolytes.

REPLACEMENT of deficits & on-going losses - prescription should reflect the electrolyte composition of the fluid being lost. Gastric losses - replace volume for volume with sodium chloride 0.9% with added potassium as required. Lower Gastrointestinal losses - replace with Hartmann's solution or, if extra potassium is needed, sodium chloride 0.9% with added potassium.

Some patients have problems of internal **REDISTRIBUTION** and may develop sodium and water excess (leading to oedema and weight gain) which frequently can occur in the context of a low intravascular volume (and associated low urine output). Prescribing appropriate IV fluids for patients with redistributive type problems is particularly difficult since too little leads to intravascular hypovolaemia, low blood pressure, poor urine output and poor tissue perfusion, whilst too much may promote more oedema. In these patient groups, formulae-based equations should be used with caution. Fluid restriction may be needed and should be guided by senior input and regular **REASSESSMENT**.

Senior help should always be sought for complex on-going fluid losses, when the balance between fluid overload and deficit is unclear, for complex redistribution issues and especially when patients have diminished organ reserves.

*Based on NICE CG174

Infusion Rates		
mls	hrs	ml/hr
500	4	125
500	6	83
1000	4	250
1000	6	167
1000	8	125
1000	12	83
1000	24	42
2000	24	83

ADULT

Write in CAPITAL LETTERS or use addressograph

Surname: _____

First names: _____

Consultant: _____ Ward: _____

Hospital no: _____ DOB: _____

Health and Care no: _____

Check identity

Yesterday's Date

Grand total in

Grand

Prescription Chart

Recording today

Yes

☐

OUTPUT (ml)

Adult



From their 16th birthday

- ❖ Chart must be used for adults
- ❖ from their 16th birthday
- ❖ throughout each of the 5 HSC Trusts
- ❖ Except for patients,
 - ❖ cared for in ICUs, HDUs, specialist units.
 - ❖ with diabetic ketoacidosis.
 - ❖ with acute burns.
- ❖ who may use different fluid prescription charts.

For information on

Preparing chart	→ slide 7
Prescribing fluids	→ slide 10
Administering fluids	→ slide 23
Prescribing medicines	→ slide 24
Completing fluid balance chart	→ slide 30
Recording intake	→ slide 30
Recording output	→ slide 34
Recording balance	→ slide 38
Start next days chart	→ slide 39
Cumulative totalling	→ slide 40



1. Labelling

Front

Write in CAPITAL LETTERS or use addressograph

Surname: _____

First names: _____

Consultant: _____ Ward: _____

Hospital no: _____ DOB: _____

Health and Care no: _____

Check identity

Daily Fluid B

Hospital _____

Ward _____

Date _____

FLUID INPUT (ml)

and

ADULT

Write in CAPITAL LETTERS or use addressograph

Surname: _____

First names: _____

Consultant: _____ Ward: _____

Hospital no: _____ DOB: _____

Health and Care no: _____

Check identity

Yesterday's Date

Grand total in

Grand

- ❖ Stick on labels and complete hospital, ward & date
- ❖ on both sides of chart

Minimum patient identifiers are:

- Full Name
- DOB
- Hospital number

2. Insert patient's weight in kgs

[illegible]

The weight used must be a recent weight

[illegible]

Indicate whether measured & when
or estimated.

[illegible]

3. Insert yesterday's fluid balance details

ADULT

Write in CAPITAL LETTERS or use addressograph

Surname: _____

First name: _____

Consultant: _____ Ward: _____

Hospital no: _____ DOB: _____

Recent Weight _____ kg

Weighted ☐ / /

Estimated ☐

FLUID PRESCRIPTION ADVICE FOR ADULTS*

Fluid therapy should involve the consideration of:-

- REPLETION** - **B** Fluid bolus volume for hypovolaemic shock.
- ROUTINE MAINTENANCE** - **M** Volume with clinical status.
- REPLACEMENT** - Correction of any obvious fluid deficit - **B** and ongoing losses - **B** (e.g. vomiting, drainage, insensible, diarrhoea).
- REDISTRIBUTION** - Patients with sepsis, severe renal, liver or cardiac disease, malnutrition, resuscitating tissues or post-operative.
- REASSESSMENT** - Include clinical assessments & glucose and U&E at least 24 hourly.
- Use the oral or enteral route whenever possible for giving fluids.
- Daily insensible loss = 500 - 800 ml.

Types of Fluid

Sodium chloride 0.9% provides the most important extracellular ions. It is indicated when **RESUSCITATION** by a fluid bolus is needed for shock and in sodium depletion. The administration of large volumes may give rise to sodium accumulation, oedema, and hyperchloraemic acidosis. Compound sodium lactate (Hartmann's solution) contains 5 mmol/L of potassium can be used instead of isotonic sodium chloride solution during or after surgery or in the initial management of the injured or resuscitated. It may reduce the risk of hyperchloraemic acidosis. 5% glucose (dextrose) is an important source of water for maintenance, but should be used with caution as excessive amounts may cause dangerous hyponatraemia, especially in the elderly.

MAINTENANCE fluids replace the normal fluid content of oral food intake, insensible loss & urinary output and are prescribed to provide hydration in patients unable to fully use the oral or enteral route. Maintenance fluids should take into account the volume of fluid to deliver (IV infusions (antibiotics, analgesics)). The total (oral, IV drug and prescribed fluids) volume prescribed in healthy adults (without excess fluid losses) should be of the order of 20 mL/kg/day up to a maximum of 2.5L. Consider prescribing less fluid (e.g. 20-25 mL/kg/day) for patients who are older, have a renal impairment or cardiac failure. Consider using ideal body weight for obese patients.

Prescription: 1 to 2 mL/kg/day so it is rarely necessary to give more than 1 litre of sodium chloride 0.9% or Hartmann's solution per day for maintenance IV fluids. Antibiotic and analgesic infusions may already provide some of this. Potassium requirement - 1 mmol/kg/day adjusted according to the serum potassium.

Phosphate, Magnesium - monitor & correct.

Many patients have specific needs to cover **REPLACEMENT** and/or **REDISTRIBUTION** of fluid and electrolytes.

REPLACEMENT of deficits & on-going losses - prescription should reflect the electrolyte composition of the fluid being lost.

Central lines - replace volume for volume with sodium chloride 0.9% with added potassium as required.

Lower Gastrointestinal losses - replace with Hartmann's solution or, if extra potassium is needed, sodium chloride 0.9% with added potassium.

Some patients have problems of internal **REDISTRIBUTION** and may develop sodium and water excess (leading to oedema and weight gain) which frequently can occur in the context of a low intravascular volume (and associated low urine output). Prescribing appropriate IV fluids for patients with redistributive type problems is particularly difficult since too little leads to intravascular hypovolaemia, low blood pressure, poor urine output and poor tissue perfusion, whilst too much may promote more oedema. In these patient groups, formula-based equations should be used with caution. Fluid restriction may be needed and should be guided by sensor input and regular **REASSESSMENT**.

Senior staff should always be sought for complex on-going fluid losses, when the balance between fluid overload and deficit is unclear, for complex redistribution issues and especially when patients have diminished organ reserves.

*Based on NICE CG174

Yesterday's Date	Grand total in	Grand total out	Balance

Composition of common infusions	mL	g	mmol	mmol/L	mmol/kg	mmol/kg
5% Glucose (Dextrose)	0	0	278	-	-	-
0.45% Sodium Chloride	77	77	0	-	-	-
0.45% Sodium Chloride + 5% Glucose (Dextrose)	77	77	278	-	-	-
0.9% Sodium Chloride	154	154	0	-	-	-
Compound Sodium Lactate - Hartmann's solution	131	111	0	29	5	-
Plasma substitutes: gelatins, etherified starches	140 - 154	118 - 154	0	0 - 30	0 - 5	-
Plasma	125 - 145	95 - 108	3.5 - 7.0	0.4 - 2.2	3.5 - 5.0	-

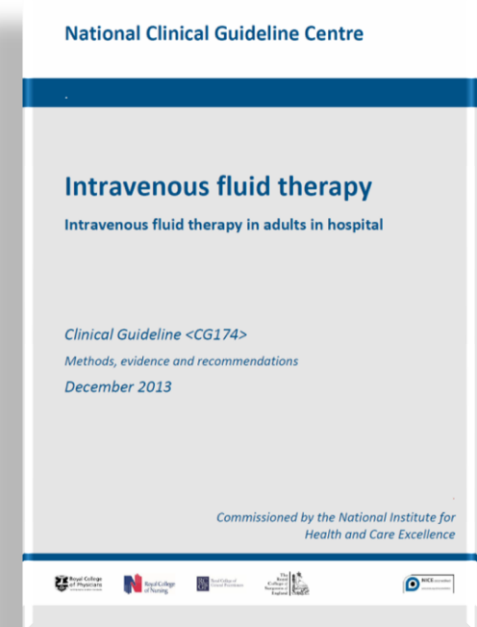
Indications - all that apply: ☐ Fluid ☐ Bolus volume, ☐ Deficit, ☐ On-going loss volume, ☐ Maintenance, ☐ Drug ☐ Prescription

* Medicines must be recorded in Drug Kardex ** Model name, Serial number.

↓	Date	Time	Volume	Infusion Fluid/Type	Additives *	Rate ml/hour Range	Prescriber's Signature	Administered By	Checked By	Batch/Lot No. & Expiry Date	Pump Details **	Start Time	Finish Time	Volume given
				③										
				④										
				⑤										
				⑥										
				⑦										
				⑧										
				⑨										
				⑩										
				⑪										
				⑫										

4. Prescribe fluids

- ❖ When prescribing IV fluids, remember the 5 Rs:
 - ❖ **R**esuscitation,
 - ❖ **R**outine maintenance,
 - ❖ **R**eplacement,
 - ❖ **R**edistribution and
 - ❖ **R**eassessment.



4. Prescribe fluids

- ❖ Back of chart contains a fluid advice panel,
- ❖ based upon the 5 **R**s.
- ❖ Considers,
 - ❖ Fluid **B**olus for shock,
 - ❖ **M**aintenance fluid – if required,
 - ❖ Correction of any fluid **D**eficit,
 - ❖ Balancing any **O**ngoing losses.
 - ❖ Clinical reassessment & monitoring.
- ❖ Seek **Senior** help if needed.

5 R s
R esuscitation
R outine maintenance
R eplacement
R edistribution
R eassessment

4. Prescribe fluids

Shock → Fluid Bolus

If fluid **B**olus required →

- ❖ calculate volume
- ❖ prescribe this calculated volume
- ❖ record indication as **B**

Indications - all that apply: Fluid B olus volume, D eficit, O n-going loss volume, M aintenance, Drug P reparation					
	Date	Time	Volume	Infusion Fluid/Type	Additives *
<u>B</u>	01/01/xxxx	12:00	500 mls	(a) 0.9% SODIUM CHLORIDE	
				(b)	
				(c)	
				(d)	

Over 15 minutes

4. Prescribe fluids

Shock → Fluid Bolus

Maintenance

Calculate **M**aintenance requirements

❖ record indication as **M**

4. Prescribe fluids

Shock → Fluid Bolus

Maintenance

Calculate **M**aintenance requirements

❖ record indication as **M**

Indications - all that apply: Fluid B olus volume, D eficit, O n-going loss volume, M aintenance, Drug P reparation						
	Date	Time	Volume	Infusion Fluid/Type	Additives *	
B	01/01/xxxx	12:00	500 mls	(a) 0.9% SODIUM CHLORIDE		Over 15 minutes
M	01/01/xxxx	12:30	500 mls	(b) 5% GLUCOSE	20mmol KCl	
				(c)		
				(d)		
				(e)		

4. Prescribe fluids

Shock → Fluid Bolus

Maintenance

Correct deficit

Is there a fluid **D**eficit?

- ❖ calculate correction
- ❖ prescribe
- ❖ record indication as **D**

4. Prescribe fluids

Shock → Fluid Bolus

Maintenance

Correct deficit

Indications - all that apply: Fluid B olus volume, D eficit, O n-going loss volume, M aintenance, Drug P reparation					
	Date	Time	Volume	Infusion Fluid/Type	Additives *
B	01/01/xxxx	12:00	500 mls	^(a) 0.9% SODIUM CHLORIDE	
M	01/01/xxxx	12:30	500mls	^(b) 5% GLUCOSE	20mmol KCl
D	01/01/xxxx	12:30	500mls	^(c) HARTMANN'S SOLN.	
				^(d)	

Over 15 minutes

4. Prescribe fluids

Shock → Fluid Bolus

Maintenance

Correct deficit

Ongoing fluid losses

If there are any **O**ngoing losses

- ❖ calculate
- ❖ prescribe
- ❖ record indication as **O**

4. Prescribe fluids

Shock → Fluid Bolus

Maintenance

Correct deficit

Ongoing fluid losses

Indications - all that apply: Fluid B olus volume, D eficit, O n-going loss volume, M aintenance, Drug P reparation					
	Date	Time	Volume	Infusion Fluid/Type	Additives *
B	01/01/xxxx	12:00	500 mls	^(a) 0.9% SODIUM CHLORIDE	
M	01/01/xxxx	12:30	500mls	^(b) 5% GLUCOSE	20mmol KCl
D	01/01/xxxx	12:30	500mls	^(c) HARTMANN'S SOLN.	
O	01/01/xxxx	17:00	500mls	^(d) 0.9% SODIUM CHLORIDE	

Over 15 minutes

4. Prescribe fluids – example 1

Indications - all that apply: Fluid <u>B</u> olus volume, <u>D</u> eficit, <u>O</u> n-going loss volume, <u>M</u> aintenance, Drug <u>P</u> rescription					* Medicines must be reco		
↓	Date	Time	Volume	Infusion Fluid/Type	Additives *	Rate ml/hour Range	Prescriber's Signature
B	01/01/xx	12:00	500 mls	(a) 0.9% SODIUM CHLORIDE		Over 15 minutes	Xxxx. Xxxxx
M	01/01/xx	12:30	500 mls	(b) 5% GLUCOSE	20mmol KCl	75 mls/hr	Xxxx. Xxxxx
D	01/01/xx	12:30	500 mls	(c) HARTMANN'S SOLN.		80 mls/hr	Xxxx. Xxxxx
O	01/01/xx	1700	500 mls	(d) 0.9% SODIUM CHLORIDE	40mmol KCl	40mls/hr	Xxxx. Xxxxx
M	01/01/xx	20:30	1000 mls	(e) 0.9% SODIUM CHLORIDE	40mmol KCl	75 mls/hr	Xxxx. Xxxxx
				(f)			
				(g)			
				(h)			
				(i)			
				(j)			

Example 1:
Based on 70 kg adult.

4. Prescribe fluids – example 2

Indications - all that apply: Fluid <u>B</u> olus volume, <u>D</u> eficit, <u>O</u> n-going loss volume, <u>M</u> aintenance, Drug <u>P</u> rescription								* Medicines must be reco
	Date	Time	Volume	Infusion Fluid/Type	Additives *	Rate ml/hour Range	Prescriber's Signature	
B	01/01/xx	12:00	500 mls	(a) 0.9% SODIUM CHLORIDE		Over 15 minutes	Xxxx. Xxxxx	
M+D	01/01/xx	1230	1000mls	(b) HARTMANN'S SOLN.		120 mls/hr	Xxxx. Xxxxx	
O	01/01/xx	1700	500 mls	(c) 0.9% SODIUM CHLORIDE	40mmol KCl	40mls/hr	Xxxx. Xxxxx	
M	01/01/xx	2030	1000 mls	(d) 0.9% SODIUM CHLORIDE	40mmol KCl	60 mls/hr	Xxxx. Xxxxx	
				(e)				
Example 2: Alternatively, indications may be combined.								
				(i)				
				(1)				

4. Prescribe fluids - identification

fluid **B**olus volume, **D**eficit, **O**n-going loss volume, **M**aintenance

Indications - all that apply:					Fluid Bolus volume		Infusion Fluid/Type	Additive	Serial number:				
↓	Date	Time	Volume	Infusion					No.	Pump	Start	Finish	Volume
				(a)									
				(b)									
				(c)			(a) 0.9% SODIUM CHLORIDE						
				(d)									
				(e)									
				(f)			(b) HARTMANN'S SOLUTION						
				(g)									
				(h)									
				(i)			(c) 5% GLUCOSE SOLUTION						
				(j)									

Infusion fluids can also be identified by their Letter

4. Fluid prescription & administration

❖ IV fluid infusions

- ❖ Intravenous fluid replacement or treatment.
e.g. Sodium Chloride 0.9%,
Glucose 5%.

❖ Prescribe on back of Fluid Chart

❖ Record volumes on front of Fluid Chart

FLUID INPUT (ml)

	ORAL FLUID				INTRAVENOUS FLUID & MEDICINES*										Hourly Amount IN	Grand Total IN
	LIQUID		ENTERAL		Fluid Type		Fluid Type		Fluid Type		Fluid Type					
	Amount	Total	Amount	Total	Amount	Total	Amount	Total	Amount	Total	Amount	Total				
08.00					Hartmanns Soln.											
09.00					20											
10.00					20											
11.00					20											
12.00					20											
13.00					20											
14.00					20											
15.00					20											
16.00					20											
17.00					20											
18.00					20											
19.00					20											
20.00					20											
21.00					20			Sod Chloride 0.9%								
22.00							40									
23.00							40									
24.00							40									
01.00							40									
02.00							40									
03.00							40									
04.00							40									
05.00							40									
06.00							40									
07.00							40									

❖ Not necessary to prescribe or reference on Kardex.

4. Administration

Indications - all that apply: Fluid **B**olus volume, **D**eficit, **O**n-going loss volume, **M**aintenance, Drug **P**rescription * Medicines must be recorded in Drug Kardex ** Model name, Serial number.

↓	Date	Time	Volume	Infusion Fluid/Type	Additives *	Rate ml/hour Range	Prescriber's Signature	Administered By	Checked By	Batch/Lot No. & Expiry Date	Pump Details **	Start Time	Finish Time	Volume given
B	01/01/xx	12:00	500 mls	(a) 0.9% SODIUM CHLORIDE		Over 15 minutes	Xxxx. Xxxx							
M	01/01/xx	12:30	500 mls	(b) HARTMANN'S SOLUTION		65 mls/hr	Xxxx. Xxxx							
O	01/01/xx	17:00	500 mls	(c) 0.9% SODIUM CHLORIDE	40 mmol KCl	20 mls/hr	Xxxx. Xxxx							
				(d)										
				(e)										
				(f)										
				(g)										
				(h)										
				(i)										
				(j)										

When completing this section, the following double checks are made:-

- Check**
- Correct patient
 - Correct fluid or medicine
 - Correct dose - including Batch number & Expiry date
 - Correct time
 - Correct route
 - Infusion pump details

5. Medicine prescription & administration

❖ Intermittent infusions

- ❖ administration of an infusion over a set time period, either as a one-off dose, or repeated at specific time intervals, e.g. pre-prepared infusion – paracetamol, ciprofloxacin, metronidazole.

❖ Prescribe on Kardex

- ❖ Record volumes on front of Fluid Chart

[illegible]

- ❖ Not necessary to record on back of Chart

5. Medicine prescription & administration

FLUID INPUT (ml)

	ORAL FLUID				INTRAVENOUS FLUID & MEDICINES*										Hourly Amount IN	Grand Total IN
	ORAL		NG tube ENTERAL		10G Right hand		20G Left ACF		No.3 Site		20G Left ACF					
	Fluid Type		Fluid Type		Fluid Type		Fluid Type		Fluid Type		Fluid Type					
	Amount	Total	Amount	Total	Amount	Total	Amount	Total	Amount	Total	Amount	Total				
08.00																
09.00																
10.00												100	PARACETAMOL			
11.00																
12.00																
13.00												200	CIPROFLOXACIN			
14.00																
15.00																
16.00																
17.00																
18.00												100	PARACETAMOL			
19.00																
20.00																
21.00																
22.00																
23.00																
24.00																
01.00												200	CIPROFLOXACIN			
02.00																
03.00																
04.00												100	PARACETAMOL			
05.00																
06.00																
07.00																
												700				

- ❖ If feasible
- ❖ Record all IV drugs (e.g. paracetamol or antibiotics) in one column
- ❖ e.g. column indicated
- ❖ enables calculation of daily medicines volume.

5. Medicine prescription & administration

- ❖ **Intermittent infusions**
- ❖ All significant fluid volumes must be recorded on the front of the Fluid Chart.
- ❖ Significant =
- ❖ Record for,
 - ❖ volume equal to or greater than 50 mls.
 - ❖ all volumes if on a strict fluid management regime (unless ward/unit protocol states otherwise).

5. Medicine prescription & administration

- ❖ Continuous infusions
- ❖ Reference on Kardex
- ❖ administration of a volume of fluid with medicines added
- ❖ Record volumes on front of Fluid Chart

e.g. Amiodarone in 5% Glucose infusion.

FLUID INPUT (ml)

	ORAL FLUID				INTRAVENOUS FLUID & MEDICINES*										Hourly Amount IN	Grand Total IN
	LIQUID		ENTERAL		Fluid Type		Fluid Type		Fluid Type		Fluid Type		Fluid Type			
	Amount	Total	Amount	Total	Amount	Total	Amount	Total	Amount	Total	Amount	Total	Amount	Total		
08.00																
09.00																
10.00																
11.00																
12.00																
13.00																
14.00																
15.00																
16.00																
17.00																
18.00																
19.00																
20.00																
21.00																
22.00																
23.00																
24.00																
01.00																
02.00																
03.00																
04.00																
05.00																
06.00																
07.00																

*Include volume of infused medicines

- ❖ Prescribe on back of Fluid Chart

5. Medicine prescription & administration

- ❖ **Electrolyte treatment**
- ❖ Reference on Kardex
- ❖ administration of a fluid containing added electrolyte solution for replacement or treatment.
- ❖ Record volumes on front of Fluid Chart

e.g. Potassium, Phosphate, Magnesium.

FLUID INPUT (ml)

	ORAL FLUID				INTRAVENOUS FLUID & MEDICINES*										Hourly Amount IN	Grand Total IN
	LIQUID		ENTERAL		IV		IV		IV		IV					
	Fluid Type		Fluid Type		Fluid Type		Fluid Type		Fluid Type		Fluid Type					
	Amount	Total	Amount	Total	Amount	Total	Amount	Total	Amount	Total	Amount	Total				
08.00																
09.00																
10.00																
11.00																
12.00																
13.00																
14.00																
15.00																
16.00																
17.00																
18.00																
19.00																
20.00																
21.00																
22.00																
23.00																
24.00																
01.00																
02.00																
03.00																
04.00																
05.00																
06.00																
07.00																

- ❖ Prescribe on back of Fluid Chart

5. Medicine prescription & administration

Indications - all that apply: Fluid B olus volume, D eficit, O n-going loss volume, M aintenance, Drug P rescription				* Medicines must be recorded in Drug Kardex			** Model name, Serial number.							
↓	Date	Time	Volume	Infusion Fluid/Type	Additives *	Rate ml/hour Range	Prescriber's Signature	Administered By	Checked By	Batch/Lot No. & Expiry Date	Pump Details **	Start Time	Finish Time	Volume given
B	01/01/xx	12:00	500 mls	(a) 0.9% SODIUM CHLORIDE		Over 15 minutes	Xxxx. Xxxx							
M	01/01/xx	12:30	500 mls	HARTMANN'S SOLUTION		1.5 ml/hr	Xxxx. Xxxx							
O	01/01/xx	1700	500 mls	0.9% SODIUM C	40 mmol KCl		Xxxx. Xxxx							
				(d)										
				(e)										
				(f)										
				(g)										
				(h)										
				(i)										
				(j)										

* If prescribe medicines here → record or reference in Drug Kardex

6. Record intake

FLUID INPUT (ml)

	ORAL FLUID				INTRAVENOUS FLUID & MEDICINES*										Hourly Amount IN	Grand Total IN
	ORAL		ENTERAL		No.1 Site		No.2 Site		No.3 Site		No.4 Site					
	Fluid Type		Fluid Type		Fluid Type		Fluid Type		Fluid Type		Fluid Type					
	Amount	Total	Amount	Total	Amount	Total	Amount	Total	Amount	Total	Amount	Total				
08.00																
09.00																
10.00																
11.00																
12.00																
13.00																
14.00																
15.00																
16.00																
17.00																
18.00																
19.00																
20.00																
21.00																
22.00																
23.00																
24.00																
01.00																
02.00																
03.00																
04.00																
05.00																
06.00																
07.00																

- ❖ Record
 - ❖ Site
 - ❖ Type of fluid
 - ❖ Amount received
- ❖ for each type of fluid
- ❖ every hour

6. Record intake

FLUID INPUT (ml)

	ORAL FLUID				INTRAVENOUS FLUID & MEDICINES*										Hourly Amount IN	Grand Total IN		
	ORAL		NG tube ENTERAL		*Include volume of infused medicines													
					16g Right hand		20g Left ACF		No.3 Site		No.4 Site							
	Fluid Type		Fluid Type		Fluid Type		Fluid Type		Fluid Type		Fluid Type							
	Amount	Total	Amount	Total	Amount	Total	Amount	Total	Amount	Total	Amount	Total						
08.00																		
09.00			Ensure															
10.00			40															
11.00			40		Hartmann's													
12.00			40		100													
13.00			40		100													
14.00			40		100													
15.00			40		100													
16.00			40		100													
17.00			40		0.9% Sodium Chloride													
18.00			40		40													
19.00			40		40		D5W											
20.00			40		40		100											
21.00					40		100											
22.00					40		100											
23.00					40		100											
24.00					40		100											
01.00					40													
02.00					40													
03.00					40													
04.00					40													
05.00					40													
06.00					40													
07.00					40													

- ❖ Record
 - ❖ Site
 - ❖ Type of fluid
 - ❖ Amount received
- ❖ for each type of fluid
- ❖ every hour

6. Record intake

FLUID INPUT (ml)

	ORAL FLUID				INTRAVENOUS FLUID & MEDICINES*										Hourly Amount IN	Grand Total IN		
	ORAL		NG tube ENTERAL		*Include volume of infused medicines													
					16g Right hand		20g Left ACF		No.2 Site		No.3 Site		No.4 Site					
	Fluid Type		Fluid Type		Fluid Type		Fluid Type		Fluid Type		Fluid Type							
	Amount	Total	Amount	Total	Amount	Total	Amount	Total	Amount	Total	Amount	Total	Amount	Total				
08.00																		
09.00			Ensure															
10.00			40															
11.00			40		(a)													
12.00			40		100													
13.00			40		100													
14.00			40		100													
15.00			40		100													
16.00			40		100													
17.00			40		(b)													
18.00			40		40													
19.00			40		40		(c)											
20.00			40		40		100											
21.00					40		100											
22.00					40		100											
23.00					40		100											
24.00					40		100											
01.00					40													
02.00					40													
03.00					40													
04.00					40													
05.00					40													
06.00					40													
07.00					40													

- ❖ Record
 - ❖ Site
 - ❖ Type* of fluid
 - ❖ Amount received
- ❖ for each type of fluid
- ❖ every hour

* = identify with letter if wish

7. Record intake totals

INTAKE	8am	Day	8pm	Night	8am	Total
Oral						
Enteral						440
Intravenous						1560
Grand Total IN						2000

8. Record outputs

- ❖ Columns to record;
 - ❖ Urine output,
 - ❖ Output from Bowel,
 - ❖ 2 Spare columns,
 - ❖ Comments column can also be used to record output, if needed.

[illegible]

8. Record outputs

- ❖ Record
 - ❖ Site if necessary
 - ❖ Amount
 - ❖ Type
- ❖ for each type of fluid.

FLUID OUTPUT (ml)

URINE		BOWEL						COMMENTS					
		N/G				Drain 1				Hourly Amount OUT	Grand Total OUT	Overall Balance	Initials
Amount	Total	Amount	Total	Amount	Total	Amount	Total	Amount	Total				
40													
20		40				100							
10													
10													
30													
50		50											
50													
80													
100						120							
120		60											
100													
150													
		40											
150						200							
		0											
200													
						50							
		10											
200													

9. Record Signature

Record signature or initials
when making entries onto chart

[illegible]

10. Record output totals

OUTPUT	8am	Day	8pm	Night	8am	Total
Urine						1310
Bowel						200
Other						
Other						470
Grand Total OUT						1980

11. Complete overall 24 hour balance

INTAKE					8am	Day	8pm	Night	8am	Total
Oral										
Enteral										440
Intravenous										1560
Grand Total IN										2000

—

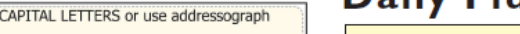
OUTPUT					8am	Day	8pm	Night	8am	Total
Urine										1310
Bowel										200
Other										
Other										470
Grand Total OUT										1980

=

24 hour Fluid Balance (ml)	
Balance	+20

Steps 1 → 11 should be completed for each patient.

i. Labelling



Write in CAPITAL LETTERS or use addressograph

Surname: _____

First names: _____

Consultant: _____

Hospital no: _____

Health and Care no: _____

Ward: _____

DOB: _____

Front

Hospital _____

Ward _____

Date _____

ADULT

Write in CAPITAL LETTERS or use addressograph

Surname: _____

First names: _____

Consultant: _____

Hospital no: _____ DOB: _____

Health and Care no: _____

Back

check identity

ii. Weight

[illegible]

iii. Volumes

Yesterday's Date	Grand total in	Grand total out	Balance
	2000	1980	+20

Cumulative Totals

- ❖ It is commonly done for each individual fluid. 
- ❖ And fluids can be totalled hourly 
- ❖ Can total Output fluids only or both Input and Output.

[illegible][illegible]

- ❖ Not every patient needs it done
 - ❖ Some will never need it
 - ❖ Some will only need it for a while

Cumulative Totals

- ❖ Decision to calculate and record cumulative totals depends on:-
 - ❖ the severity of the patient's illness.
 - ❖ Hospital site, Service Directorate, Unit or ward policy.
- ❖ For example, cumulative totalling may be required with:-
 - ❖ Hourly urine output measurement.
 - ❖ Postoperative patients.
 - ❖ Receiving both oral and intravenous fluid administration.
 - ❖ Patients with gastrointestinal fluid loss and drainage problems.
 - ❖ Patients with electrolyte problems.
 - ❖ Complex and/or Unstable patients.

Cumulative Totals – may be an instruction

Special Instructions:

For Hourly, Cumulative fluid recording today

Yes ☐

Write in CAPITAL LETTERS or use addressograph
Surname: _____
First names: _____
Consultant: _____ Ward: _____
Hospital no: _____ DOB: _____
Health and Care no: _____

Date

Hospital
Ward
Date

FLUID INPUT (ml)

FLUID OUTPUT (ml)

	ORAL FLUID				ENTERAL				INTRAVENOUS			
	ORAL		ENTERAL		ENTERAL		ENTERAL		INTRAVENOUS		INTRAVENOUS	
	Fluid Type	Amount	Fluid Type	Amount	Fluid Type	Amount	Fluid Type	Amount	Fluid Type	Amount	Fluid Type	Amount
08.00												
09.00												
10.00												
11.00												
12.00												
13.00												
14.00												
15.00												
16.00												
17.00												
18.00												
19.00												
20.00												
21.00												
22.00												
23.00												
24.00												
01.00												
02.00												
03.00												
04.00												
05.00												
06.00												
07.00												

URINE

BOWEL

COMMENT



INTAKE	Start	Day	Even	Night	Start	Total
Oral						
Enteral						
Intravenous						
Grand Total IN						

OUTPUT	Start	Day	Even	Night	Start	Total
Urine						
Bowel						
Other						
Other						
Grand Total OUT						

24 hour Fluid Balance (ml)

Balance

6a. Intake – Cumulative total for each site

FLUID INPUT (ml)

[illegible]

- ❖ Cumulative totals for
 - ❖ each site

6a. Intake – Cumulative total for each site

FLUID INPUT (ml)

	ORAL FLUID				INTRAVENOUS FLUID & MEDICINES*										Hourly Amount IN	Grand Total IN		
	ORAL		NCTube ENTERAL		*Include volume of infused medicines													
	Fluid Type		Fluid Type		16G Right hand		20G Left ACF		No.3 Site		No.4 Site							
	Fluid Type		Fluid Type		Fluid Type		Fluid Type		Fluid Type		Fluid Type							
	Amount	Total	Amount	Total	Amount	Total	Amount	Total	Amount	Total	Amount	Total						
08.00																		
09.00				Ensure														
10.00			40	40														
11.00			40	80	(a)													
12.00			40	120	100	100												
13.00			40	160	100	200												
14.00			40	200	100	300												
15.00			40	240	100	400												
16.00			40	280	100	500												
17.00			40	320	(b)													
18.00			40	360	40	540												
19.00			40	400	40	580	(c)											
20.00			40	440	40	620	100	100										
21.00					40	660	100	200										
22.00					40	700	100	300										
23.00					40	740	100	400										
24.00					40	780	100	500										
01.00					40	820												
02.00					40	860												
03.00					40	900												
04.00					40	940												
05.00					40	980												
06.00					40	1020												
07.00					40	1060												
				440		1060		500						2000				

❖ Cumulative totals for

- ❖ each site and
- ❖ possibly, each type of fluid.

❖ This will allow

- ❖ Totals for each fluid
- ❖ and a

Grand Total in

6b. Intake – Hourly cumulative totals

FLUID INPUT (ml)

	ORAL FLUID				INTRAVENOUS FLUID & MEDICINES*										Hourly Amount IN	Grand Total IN		
	ORAL		NCTube ENTERAL		*Include volume of infused medicines													
					16G Right hand		20G Left ACF		No.3 Site		No.4 Site							
	Fluid Type		Fluid Type		Fluid Type		Fluid Type		Fluid Type		Fluid Type							
	Amount	Total	Amount	Total	Amount	Total	Amount	Total	Amount	Total	Amount	Total						
08.00																		
09.00																		
10.00																		
11.00																		
12.00																		
13.00																		
14.00																		
15.00																		
16.00																		
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18.00																		
19.00																		
20.00																		
21.00																		
22.00																		
23.00																		
24.00																		
01.00																		
02.00																		
03.00																		
04.00																		
05.00																		
06.00																		
07.00																		

- ❖ Cumulative totals to be calculated
- ❖ each hour
- ❖ to get an

Hourly amount in
and then
Grand Total in

6b. Intake – Hourly cumulative totals

FLUID INPUT (ml)

	ORAL FLUID				INTRAVENOUS FLUID & MEDICINES*										Hourly Amount IN	Grand Total IN		
	ORAL		NCTube ENTERAL		*Include volume of infused medicines													
	Fluid Type		Fluid Type		Right hand		Left ACF		No.3 Site		No.4 Site							
	Amount	Total	Amount	Total	Amount	Total	Amount	Total	Amount	Total	Amount	Total						
08.00																		
09.00			Ensure															
10.00			40										40	40				
11.00			40		(a)								40	80				
12.00			40		100								140	220				
13.00			40		100								140	360				
14.00			40		100								140	500				
15.00			40		100								140	640				
16.00			40		100								140	780				
17.00			40		(b)								40	820				
18.00			40		40								80	900				
19.00			40		40		(c)						80	980				
20.00			40		40		100						180	1160				
21.00					40		100						140	1300				
22.00					40		100						140	1440				
23.00					40		100						140	1580				
24.00					40		100						140	1720				
01.00					40								40	1760				
02.00					40								40	1800				
03.00					40								40	1840				
04.00					40								40	1880				
05.00					40								40	1920				
06.00					40								40	1960				
07.00					40								40	2000				

- ❖ Cumulative totals to be calculated
- ❖ each hour
- ❖ to get an

Hourly amount in
and then
Grand Total in

6c. Intake - complete cumulative totalling

FLUID INPUT (ml)

	ORAL FLUID				INTRAVENOUS FLUID & MEDICINES*										Hourly Amount IN	Grand Total IN		
	ORAL		NCTube ENTERAL		*Include volume of infused medicines													
	Fluid Type		Fluid Type		Right hand 16G		Left ACF 20G		No.3 Site		No.4 Site		Fluid Type	Fluid Type				
	Amount	Total	Amount	Total	Amount	Total	Amount	Total	Amount	Total	Amount	Total						
08.00																		
09.00			Ensure															
10.00			40	40											40	40		
11.00			40	80	(a)										40	80		
12.00			40	120	100	100									140	220		
13.00			40	160	100	200									140	360		
14.00			40	200	100	300									140	500		
15.00			40	240	100	400									140	640		
16.00			40	280	100	500									140	780		
17.00			40	320	(b)										40	820		
18.00			40	360	40	540									80	900		
19.00			40	400	40	580	(c)								80	980		
20.00			40	440	40	620	100	100							180	1160		
21.00					40	660	100	200							140	1300		
22.00					40	700	100	300							140	1440		
23.00					40	740	100	400							140	1580		
24.00					40	780	100	500							140	1720		
01.00					40	820									40	1760		
02.00					40	860									40	1800		
03.00					40	900									40	1840		
04.00					40	940									40	1880		
05.00					40	980									40	1920		
06.00					40	1020									40	1960		
07.00					40	1060									40	2000		
				440		1060		500								2000		

- ❖ Worked example
- ❖ Showing cumulative totalling for
 - ❖ each fluid ↓
 - ❖ and
 - ❖ hourly →

7. Record intake totals

INTAKE	8am	Day	8pm	Night	8am	Total
Oral						
Enteral		400		40		440
Intravenous		580		980		1560
Grand Total IN						2000

with Day & Night totals if requested by Senior Staff

- ❖ Cumulative totals to be calculated for
 - ❖ each type of fluid

8a. Output – cumulative total for each fluid

❖ Cumulative totals to be calculated for

❖ each type of fluid

❖ This will allow a
Grand Total out

FLUID OUTPUT (ml)

URINE		BOWEL						COMMENTS		Hourly Amount OUT	Grand Total OUT	Overall Balance	Initials
Amount	Total	Amount	Total	Amount	Total	Amount	Total	Amount	Total				
40	40												
20	60	40	40			100	100						
10	70												
10	80												
30	110												
50	160	50	90										
50	210												
80	290												
100	390					120	220						
120	510	60	150										
100	610												
150	760												
		40	190										
150	910					200	420						
		0	190										
200	1110												
						50	470						
		10	200										
200	1310												
	1310		200			470					1980		

8b. Output – Hourly cumulative totals

❖ Cumulative totals to be calculated for

- ❖ each hour
- ❖ to get an

Hourly amount out
and then
Grand Total out

FLUID OUTPUT (ml)

URINE		BOWEL						COMMENTS		Hourly Amount OUT	Grand Total OUT	Overall Balance	Initials
Amount	Total	Amount	Total	Amount	Total	Amount	Total	Amount	Total				
40													
20		40				100							
10													
10													
30													
50		50											
50													
80													
100						120							
120		60											
100													
150													
		40											
150						200							
		0											
200						50							
		10											
200													

8b. Output – Hourly cumulative totals

❖ Cumulative totals to be calculated for

- ❖ each hour
- ❖ to get an

Hourly amount out
and then
Grand Total out

FLUID OUTPUT (ml)

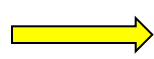
URINE		BOWEL						COMMENTS		Hourly Amount OUT	Grand Total OUT	Overall Balance	Initials
Amount	Total	Amount	Total	Amount	Total	Amount	Total	Amount	Total				
40										40	40		
20		40				100				160	200		
10										10	210		
10										10	220		
30										30	250		
50		50								100	350		
50										50	400		
80										80	480		
100						120				220	700		
120		60								180	880		
100										100	980		
150										150	1130		
		40								40	1170		
150						200				350	1520		
		0											
200										200	1720		
						50				50	1770		
		10								10	1780		
200										200	1980		

8c. Output – complete cumulative totalling

❖ Worked example

❖ Showing cumulative totalling for

❖ each fluid 

❖ hourly 

FLUID OUTPUT (ml)

URINE		BOWEL						COMMENTS					
						Drain 1				Hourly Amount OUT	Grand Total OUT	Overall Balance	Initials
Amount	Total	Amount	Total	Amount	Total	Amount	Total	Amount	Total				
40	40									40	40		
20	60	40	40			100	100			160	200		
10	70									10	210		
10	80									10	220		
30	110									30	250		
50	160	50	90							100	350		
50	210									50	400		
80	290									80	480		
100	390					120	220			220	700		
120	510	60	150							180	880		
100	610									100	980		
150	760									150	1130		
		40	190							40	1170		
150	910					200	420			350	1520		
		0	190										
200	1110									200	1720		
						50	470			50	1770		
		10	200							10	1780		
200	1310									200	1980		
	1310		200				470						

10a. Record output totals

OUTPUT	8am	Day	8pm	Night	8am	Total
Urine		760		550		1310
Bowel		150		50		200
Other						
Other		220		250		470
Grand Total OUT						1980

with Day* & Night totals if requested by Senior Staff

*Totalling at the end of a shift is very useful in giving early warning of a reduction in urine output.

11a. Calculate overall hourly balance

❖ Calculate the overall balance

❖ each hour

FLUID INPUT (ml)

NES*		
Site	Hourly Amount IN	Grand Total IN
Fluid Type		
nt	Total	
	40	40
	40	80
	140	220
	140	360
	140	500
	140	640
	140	780
	40	820
	80	900
	80	980
	180	1160
	140	1300
	140	1440
	140	1580
	140	1720
	40	1760
	40	1800
	40	1840
	40	1880
	40	1920
	40	1960
	40	2000

FLUID OUTPUT (ml)

MENTS				
Total	Hourly Amount OUT	Grand Total OUT	Overall Balance	Initials
	40	40	- 40	
	160	200	- 200	
	10	210	- 170	
	10	220	- 140	
	30	250	- 30	
	100	350	10	
	50	400	100	
	80	480	160	
	220	700	80	
	180	880	- 60	
	100	980	- 80	
	150	1130	- 150	
			30	
	40	1170	130	
			270	
	350	1520	60	
			200	
			240	
			280	
	200	1720	120	
	50	1770	110	
	10	1780	140	
			180	
	200	1980	20	

11a. Complete overall 24 hour balance

INTAKE				8am	Day	8pm	Night	8am	Total
Oral									
Enteral				400		40			440
Intravenous				580		980			1560
Grand Total IN									2000

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OUTPUT				8am	Day	8pm	Night	8am	Total
Urine				760		550			1310
Bowel				150		50			200
Other									
Other				220		250			470
Grand Total OUT									1980

=

24 hour Fluid Balance (ml)

Balance +20

with Day & Night totals if requested by Senior Staff

Fluid Prescription/Balance Chart

