CPO Adult Rehydration Pathway

Hyperemesis
Intractable vomiting in pregnancy <20 weeks

ADULT DEHYDRATION

Vomiting and/or Diarrhoea

EXCLUSIONS
- Children under 15years
- DKA
- Chronic Kidney Disease
- Septicaemia
- Signs of shock
- Heart failure
- Undiagnosed abdominal pain
- Intracranial causes

Assess dehydration status

CAUTION
- Older adults
- Pre-existing Heart Failure
- Unable to manage at home
- Prolonged duration of symptoms
- Significant Co-morbidities
- Features of evolving illness
- Recent Overseas Travel

Consider if medications need to be temporarily withheld. Refer to guidelines.

MILD
Mild thirst
Concentrated urine

MODERATE
Significant thirst
Oliguria
Sunken eyes
Dry mucous membranes
Weakness
Lightheaded

SEVERE
Significant thirst
Tachycardia
Low pulse volume
Cool extremities
Reduced skin turgor
Marked hypotension
Confusion

Trial of Oral Fluids
3-4 L over 24 hours
+/- Antiemetic

Investigations
Consider:
Glucose, MSU
Weight, Electrolytes
Faecal specimen
AKI investigations
Ultrasound scan

Consider Trial of Oral Fluids

No Improvement

Admission recommended

Consider review after 24 hours
Encourage Oral Fluids

Complete CPO outcome

IMPROVED

Consider IV Fluids under CPO
Intravenous fluids +/- Antiemetic
NORMAL SALINE
Review hydration status
If needed give 500 – 1000ml 60 mins

LIMIT = 2000 ml (total)

DETERIORATED

Watch for:
- Signs of fluid overload
- Inadequate response
- Persisting fluid losses
- Ketosis
- Signs of evolving illness

Acute Adult Rehydration Pathway

Purpose:

This pathway aims to serve as a general guideline in the assessment and management of **mild to moderate dehydration**, which is suitable for CPO. This pathway is specific to body fluid losses e.g. vomiting and / or diarrhoea, hyperemesis, other clinical need depending on clinical assessment and individual patient factors.

Severe dehydration is the result of large fluid losses and may be complicated by electrolyte and acid base disturbances which require treatment and observation over a prolonged period.
Severe dehydration is not suitable for care under CPO and admission to hospital is recommended.

Vomiting and/or diarrhoea are symptoms which may result from a wide range of diagnoses. A working diagnosis is important in the management of subsequent dehydration.

Eligibility Criteria:

- Hawke's Bay resident
- Age 15 years and over
- Would normally have been referred to Te Whatu Ora-Hawkes Bay acutely
- Can be managed safely in primary care

Dehydration status:

Assessment should include consideration of duration of symptoms combined with prospective total daily losses.

Exclusions:

- severe dehydration is not suitable for care under CPO and admission to hospital is recommended
- children <15 years
- DKA
- chronic kidney disease:
  - CKD 3 (gfr 30-59) - use pathway with caution
  - CKD 4 (grf 15-29 - avoid IV rehydration without consultation with on-call medical team
- septicaemia
- signs of shock
- heart failure
- undiagnosed abdominal pain
- intracranial causes

Funding:

- Referral and Claiming is through the **Halcyon Provider Portal> Coordinated Primary Options> New CPO Referral** as fee for service

Intravenous Fluids:(CPO Funded)

- Normal saline is the intravenous fluid of choice.
- Specific oral fluid solution is at the Clinicians discretion
- Anti- diarrhoeal's not recommended.

FLUID VOLUME LIMIT
2000 ML

It is recommended that the intravenous fluid volume is restricted to an upper limit of 2000ml per consultation. Fluid volumes beyond this level are likely to require more investigation, clinical monitoring and electrolyte management. Should fluid volumes beyond this level be needed then discussion with the appropriate specialist or hospital admission is recommended.

Watch for signs of:

- fluid overload
- inadequate response
- persisting fluid losses
- ketosis
- evolving illness

If Deteriorating:

- Transfer to hospital and contact AAU on-call physician 06 8734812 or 027 7654459 (Mon-Fri 8am-5pm). Out of hours contact triage nurse via switchboard 06 8788109 extn 2623.

CAUTION RECOMMENDED FOR:

- older adults
- pre-existing heart failure
- unable to manage at home
- prolonged duration of symptoms
- significant co-morbidities
- features of evolving illness
- recent overseas travel

Key Medications to consider temporarily discontinuing during acute illness in at-risk patients

- Sulfonylureas
- ACE inhibitors
- Diuretics
- Metformin
- Angiotensin Receptors Blockers (ARBs)
- Non-steroidal anti-inflammatory agents (NSAIDs)
- Dabigatran

(To remember, the acronym is SADMAN + Dabigatran).

Investigations:

Investigations are not always necessary.

Following the assessment of each case, clinical judgment is recommended to decide if further investigations are necessary. If necessary, these may include:

- Creatinine and Electrolytes - renal impairment may result from excessive fluid losses and may be especially important in older patients.
- Blood Glucose
- MSU – infection / ketones
- Faecal culture
- Weight
- Reminder- intractable vomiting may also be associated with multiple pregnancy.

Fluid replacement:

Oral

- For both mild and moderate dehydration consider a trial of oral rehydration combined with an anti-emetic.
- May include an electrolyte solution

Anti-emetics:

Ondansetron:

- A single dose of 4-8mg Ondansetron is usually enough to allow oral rehydration therapy when given in mild to moderate dehydration, prescribing additional doses is usually not required

Metoclopramide:

- Should only be prescribed for short term use (up to 5 days)
- Usual dose is 5-10 mg repeated up to 3 times daily; use lower dose in 16-20 year olds and those under 60kg
- Intravenous doses should be administered as a slow bolus over at least 3 minutes
- Metoclopramide can rarely cause severe dystonias, e.g. oculogyric crisis. These can be treated with 1-2mg of IM or IV benzatropine (benztropine)

Prochlorperazine: (Stemetil, Antinaus, Buccastem)

Available in oral, buccal, and IV formulation. Adult dose for treatment of nausea / vomiting is:

- Oral tablet: Adult acute attack 20 mg initially then 10 mg after 2 hours; prevention 5–10 mg 2–3 times daily
- Buccal tablet: Adult 3–6 mg twice daily; tablets are placed high between upper lip and gum and left to dissolve
- Deep intramuscular injection: Adult 12.5 mg when required followed if necessary after 6 hours by an oral dose, as above.