

Assessment of resident with dehydration

Goals of assessment include to assess hydration status and determine severity of dehydration, identify the cause of dehydration and to identify complications of dehydration.

Assess hydration status and determine severity of dehydration or volume depletion:

No single clinical or laboratory feature reliably predicts dehydration in older adults.

Assessment for dehydration or volume depletion may include^{1,2} :

Domain	Finding	Mild	Moderate	Severe
History	Fluid losses (diarrhoea, vomiting, diuresis)	+	++	+++
	Reduced overall intake ³	+	++	+++
	Postural presyncope or dizziness	+	++	+++
	New onset fatigue	+	++	+++
	Functional decline	+	++	+++
	Worsening confusion or altered level of consciousness	Alert	Confused	Altered level of consciousness
	Weight loss	<5%	5-9%	>=10%
Examination ⁵	Tachycardia ⁴	+	++	+++
	Hypotension	-	-	+++
	Drop in systolic blood pressure on standing of >=20 mmHg	+	++	+++
	Tachypnoea (respiratory rate >20 breaths per minute)	-	+	++
	Dry tongue	+	++	+++
	Dry oral mucous membranes	+	++	+++
	Longitudinal furrowing of the tongue	-	+	++
	Non-fluent speech	-	+	++
	Reduced axillary (armpit) sweating	+/-	+	+++
	Sternal skin turgor reduced	+	++	+++
	Sunken eyes	-	-	+++
	Extremity weakness	-	+	+++
Investigations	Plasma bicarbonate	Normal	Reduced	Markedly reduced
	Plasma osmolality	> 300 mOsm/kg (measured osmolality) or > 295 mOsm/kg (calculated osmolality) - note may be normal in volume depletion due to loss of fluid and electrolytes		

1 Adapted from eTG Gastrointestinal Guidelines: Assessing adults for dehydration. 2016. Melbourne: Therapeutic Guidelines Limited.

2 History and examination findings in older persons with dehydration are variable and should be interpreted in the context of the individual person. These findings have poor sensitivity and specificity – however published data identifies that clinicians are consistent at identifying the same people as dehydrated even though they may use slightly different combinations of these parameters.

3 Unless there is a clinical contraindication, older women should be offered at least 1.6L and older men at least 2.0L of drinks each day (in air-conditioned environments). People obtain free water from oxidation and fluid from food which can contribute ~ 500-800mL of additional water daily.

4 Tachycardia may be blunted by beta-blockers and calcium channel blockers.

5 Daily weight measures may assist in assessing hydration status if recent baseline weight is known.