Standardised care process (SCP): dehydration

health

Topic

Detection of and response to dehydration

Objective

To promote evidence-based practice in the detection of and response to dehydration screening and assessment for dehydration

Rationale

Dehydration is common in older people and can lead to constipation, increased risk of infections, falls and medication toxicity. Dehydration in older people is preventable. The risk of dehydration is increased in residents living in aged care facilities (Mentes, 2011).

Definitions

Dehydration: depletion of total body water caused by pathological loss of fluid, inadequate fluid intake or a combination of both (Mentes, 2011 p. 420).

Risk factors for dehydration:

- older age
- residing in long-term care
- not being able to perform activities of daily living (ADLs), particularly requiring assistance with food and fluids
- immobile or limited mobility
- incontinence (residents may limit fluid intake)
- cognitive impairment and/or confusion, depression
- taking multiple medicines especially diuretics
- decreased thirst
- acute illness

Body Mass Index (BMI): a weight to height ratio calculation which assists the assessment of the resident's nutritional status. The BMI is calculated using the following formula:

$$\text{BMI} = \frac{\text{Weight in kilograms}}{\text{Height in metres}^2}$$

(WHO, 2012)

Team

Manager, RNs, ENs, PCAs, resident and/or family, GP, occupational therapist, speech pathologist, dietician

Evidence base for this SCP

Mentes JC & Kang S, 2011, *Hydration management, University of Iowa College of Nursing*, John A. Hartford Foundation Center of Geriatric Nursing Excellence, Iowa City.

Mentes JC 2012, Managing oral hydration, in M. Boltz, E. Capezuti, T. Fulmer, D. Zwiker (Eds.), *Evidence-based geriatric nursing protocols for best practice* (4th Edition), Springer, New York.

World Health Organization (WHO) 2012, *Global Database on Body Mass Index: BMI Classification*, accessed 5 March 2012, <http://apps.who.int/bmi/index.jsp?introPage=intro_3.html>.

Brief SCP: dehydration

Recognition and assessment	On admission and at any time if there is a change in the resident's condition or symptoms of dehydration present, conduct a comprehensive assessment.
Interventions	If dehydration is indicated by the assessment: • review prevention strategies in place • review daily intake goal, increasing oral fluids as tolerated • document and monitor fluid intake and output • monitor symptoms by repetition of the above assessment. If severe symptoms are present or if mild symptoms do not improve: • refer to GP for medical assessment, diagnosis (including underlying causes) and treatment • implement treatment plan as ordered by the GP • in conjunction with GP review daily fluid intake goal.
Referral	• GP • Occupational therapist if available for advice regarding appropriate drinking aids • Speech pathologist • Dietician
Evaluation and reassessment	• Monitor resident until symptoms are relieved • Monitor urine specific gravity and colour • Continue preventative interventions • Monitor functional ability • Ongoing monitoring of resident for changes in condition and/or symptoms of dehydration
Resident involvement	• Determining preferred fluids and daily intake goal • Education regarding the importance of adequate fluid intake
Staff knowledge and education	• Causes of dehydration in older people • Maintaining adequate hydration

Full SCP: dehydration

Recognition and Assessment	On admission and at any time if there is a change in the resident's condition or symptoms of dehydration present:
	
	Conduct an assessment including:
	
	• previous history of dehydration
	• medical history
	• current medications
	• cognitive status
	• continence status
	• mobility status
	• the resident's usual fluid intake pattern (for example, amount, type of fluid, preferred temperature of fluid)
	• ability to access fluid and drink fluids
	• need for aids such as straws, 'special' cups.
	
	Conduct a physical assessment:
	
	• lying/standing blood pressure (low blood pressure and/or postural hypotension may be an indicator of dehydration), temperature, pulse rate, respiration rate, capillary refill rate
	• height and weight
	• calculate body mass index (BMI)
	• urine output (should be greater than 700ml per day)
	• urinalysis (colour, specific gravity)
	• symptoms of dehydration:
	  – furrowed dry tongue
	  – dry oral mucosa
	  – loss of skin turgor (allowing for normal age related changes to the skin)
	  – confusion/disorientation
	  – slow capillary refill
	  – sunken eyes
	  – drowsiness
	  – altered conscious state.
	
	Implement the following interventions to lessen the likelihood of dehydration occurring:
	
	• determine an individualised daily fluid intake goal
	• provide preferred fluids
	• have fluid available at all times
	• offer fluids regularly through the day (for example, every one and a half hours)
	• offer a variety of fluids over the day (for example, hot drinks, cold drinks)
	• provide physical assistance as required
	• provide aids (for example, straws, 'special' cups) ensuring they are used at all times
	• standardise amount of fluid given with medications, for example 180ml per administration.

Interventions	If dehydration is indicated by the assessment: • review prevention strategies already in place • review daily intake goal, increasing oral fluids as tolerated • document and monitor fluid intake and output • refer to GP to consider blood tests and withholding renal toxic, renally excreted or diuretic medicines • monitor symptoms by repeating the above assessment for example: – daily if there is no or only marginal improvement in fluid intake – in seven days if daily intake goal is being achieved. If severe symptoms are present or if mild symptoms do not improve: • refer to GP for medical assessment, diagnosis (including underlying causes) and treatment • implement treatment plan as ordered by the GP • in conjunction with GP review daily fluid intake goal.
Referral	• GP • Occupational therapist if available for advice regarding appropriate drinking aids • Speech pathologist • Dietician
Evaluation and reassessment	• Monitor resident until symptoms are relieved • Monitor urine specific gravity and colour • Continue preventative interventions • Monitor functional ability, for example, how much assistance the resident needs to access, pour and drink fluids • Ongoing monitoring of resident for changes in condition and/or symptoms of dehydration • Ongoing monitoring of resident for symptoms of overhydration, that is, unexplained weight gain, peripheral oedema, neck vein distension, shortness of breath
Resident involvement	• Determining preferred fluids and daily intake goal • Education regarding the importance of adequate fluid intake
Staff knowledge and education	• Causes of dehydration in older people • Maintaining adequate hydration • Signs and symptoms of dehydration

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