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Proposed title: Hydration practices for quality dementia care

Background and recognising excellence in hydration practice

Drinking an adequate amount of fluid is essential to life. It is therefore self-evident that supporting those who are unable to meet this daily requirement without support is an important component of care. It was illustrated to one of the authors, during her mother's recent emergency respite admission to a residential care home, that care staff recognised that some individuals need increased support with hydration. It was so reassuring for the family to observe that following an initial assessment by a senior carer that this individual was set a daily fluid target. The target was calculated against evidence based guidelines. Throughout her stay in this care home hydration was flagged as a significant aspect of her care. Also, drinking an adequate amount of fluid was discussed with her, and all her visitors. Having the opportunity to be involved in her care, whilst in the care home, was really welcomed by the whole family. The decision to agree to the respite care admission had been very difficult and supporting her to drink adequate fluids was something that the family could all contribute to. She had access to water and other types of drinks throughout the day. Whilst she really enjoyed the nutritious smoothies and iced fruit juices that she was offered, we were also able to offer advice on her preferred drinks.

The staff were not aware that a member of the family was a consultant nurse with a particular interest in hydration for vulnerable older people. The practices that she observed when visiting her mother highlighted the in-depth knowledge of this staff group regarding fluid requirements of older people; their flexibility in responding to many difficult and challenging situations when residents refuse to drink or cannot drink. They were compassionate in their responses to residents and worked with family and visitors to identify innovative ways to encourage residents to do a very natural activity – drinking. In contrast to the experience of this woman and her family, there are many situations where people with dementia do not drink adequate amounts of fluid. As a consequence residents can be sub optimally hydrated and are at high risk of dehydration. The following discussion explores some of the difficulties that people with dementia can experience, and different ways that care staff can support residents to drink.

What is good hydration ?

Maintenance of a normal fluid balance is essential for healthy ageing with hydration management considered as the promotion of adequate fluid balance that prevents complications resulting from abnormal or undesired fluid levels." [Faes et al 2007, Montes 2007]. Conversely, dehydration is a reduction in total body water volume and may be defined as significant when over 3% of body weight is lost. However, it is often difficult to determine how much weight has been lost and whether it is all due to water loss. Dehydration is usually regarded as present when it is accompanied by changes in biochemical indices and by clinical features

[Woodward 2007]. Moreover dehydration signifies a state in which a relative deficiency of fluid causes adverse effects on function and clinical outcome. Whilst the precise incidence of dehydration in the UK is not clear, what is known is that it is associated with a number of known causes of harm to people, in particular the elderly population where being short of fluid is far more common, results from limited fluid intake, and is reflected in raised osmolality. [NHSE 2015]. On the contrary, whilst there are a plethora of clinical guidelines to steer carergivers regarding nutrition and parenteral feeding / hydration, there is a scarcity of evidence-based recommendations to guide risk identification, prevention and implementation of interventions and strategies in relation to oral hydration across health and social care pathways [NHS2006, NHS 2013].

Challenges inherent in drinking and hydration by people with dementia

People with dementia experience multiple problems that affect their ability to address one of the most fundamental human needs without support. There can be reduction in thirst sensation, which also occurs as part of the normal ageing process. The lack or reduction in this sensation enhances the risk that individuals may forget to drink. This may also occur in situations where they have been provided with drinks.

They may have problems in remembering where to get drinks. Sensory problems may distort the usual prompts for an individual to get a beverage, such as recognition of the refrigerator or drinking vessels. They may be unable to remember the location of the kitchen or recognise it. Even when there is awareness of thirst and ability to access the kitchen, sequencing problems may reduce the ability to prepare drinks such as tea or coffee. They may start tasks and diminished attention span can reduce the ability to complete a task. As well as reducing fluid intake, frustration and anxiety can increase in such situations.

As dementia progresses there are increased challenges for the individual and their carers. Some individuals will simply refuse to drink or they cannot drink. Choking and swallowing difficulties increase. This can be very distressing both for the individual and carers. A combination of these and the above factors can lead to the maintenance of an adequate level of hydration being a time consuming activity.

Those living in a care home are more likely to have moderate to severe dementia, therefore it is likely that the problems they experience will be more severe. They may also have other problems such as chronic disease, disability, mobility, sensory impairment and communication which can enhance difficulties in drinking. Febrile illness can increase the need for a greater fluid intake as the body responds to increases in temperature. If this situation enhances sleepiness and lethargy the individual is likely to ingest fewer fluids. Taken together these factors can expose care home residents to a high risk of dehydration (Reed et al 2005, Faes et al 2007, Wu et al 2011, Bunn et al 2015).

Consequences of suboptimal hydration and dehydration

There are numerous reports of far from adequate fluid intake within care home populations. Older people have similar requirements to younger adults and it is recommended that

their fluid intake is NOT LESS THAN 1600ml per day from all sources [80% drinks and 20% food], however studies have demonstrated that as many as 98% of care home residents do not consume the recommended daily fluid intake (Kayser – Jones et al 1999, Montes 2006a, Woodward 2007). This can lead to individuals existing in a state of suboptimal hydration. Mild dehydration and chronic under hydration affects daily quality of life by impairing cognition as well as causing headaches, lethargy, inattention and dizziness (Montes 2006b).

More seriously dehydration is a major contributory factor in morbidity and mortality for those with dementia (BAPEN 2010, DOH 2001, NHS Kidney Care 2012). Dehydration is linked to a variety of adverse outcomes including increased inattention and confusion, delirium, infections in particular urinary tract infections, constipation, renal failure, increased medication toxicity, poor wound healing and falls (Faes et al 2007, Hodgkinson et al 2003, Remington & Hultman 2007). In many situations dehydration results in admission to hospital, which can be very disorientating and stressful to the individual and their family (Bourdel-Marchasson 2004).

Maintaining optimal hydration

Sub-optimal hydration and dehydration are preventable if an adequate oral intake can be maintained and early recognition of the signs of dehydration lead to prompt intervention (Woodward 2007, Schols et al 2009, Gasper 2011). Increasing the amount of fluids consumed is the single most effective intervention and undoubtedly, nurses and carers have an essential role in encouraging older adults to increase fluid intake (Woodward 2007, Schols et al 2009, Simmons 2001). Therefore, it is important that staff know how to recognise those at risk and can implement a range of strategies and practices, which best promote good fluid intake by residents.

The idea that something as natural as drinking has to be discussed as a matter of professional concern appears inconceivable. Maintaining an adequate fluid intake appears deceptively easy to implement, however from a clinical perspective increasing the water intake of frail residents who have dementia can be anything but simple (Ulrich & McCutcheon 2008, Gasper 2011).

A recent literature review by Bunn et al (2016) conclude that multi-component strategies are likely to have a positive effect on hydration for older people living in long term care facilities . This suggests that it is important for care home managers, nurses and carers to have a “toolkit” of strategies at their disposal to enable excellent

hydration practices. A toolkit of strategies will include hydration policies and guidelines; staff training; person centred care planning; practices and interventions to support optimal fluid intake.

Hydration policies and guidelines

Policies, procedures and guidelines can help care staff to understand what is expected in their routine practice and the standards that should be met for optimal hydration of the residents in their care. Regulation 14 of the Health and Social Care Act (2008, 2014) addresses the responsibility that services have in ensuring that persons who use services have adequate nutrition and hydration to sustain life and good health. Care home providers should therefore have a strategy to ensure that every resident has access to water and beverages, and the necessary support to be well hydrated. This should be grounded in an individual assessment to determine fluid intake and the type of support that maybe required. Provision should be made for those who lack capacity to make decisions about their own hydration needs, and act in the best interests of these individuals. It is important that managers and staff know how effective their service is in meeting the hydration needs of residents. This can be achieved through regular audit of hydration practices in the home (see https://www.cqc.org.uk/sites/default/files/20150510_hasca_2008_regulated_activities_regs_2104_current.pdf).

Training and education

Staff training and practice development should be provided to ensure that staff understand the importance of hydration and are skilled in person centred care planning and recognition of dehydration. Begum and Johnson (2009) argue that caregivers frequently do not fully grasp the significance of adequate fluid intake or the severe consequences of dehydration. Yet education and training of the care home workforce often focuses on other aspects of nutritional care with hydration needs of older people receiving less attention. It is therefore important to review the content of educational programmes to ensure that hydration and related practices are given attention to support staff to develop the relevant competencies for their practice.

Person centred care planning

Careful Person centred assessment and care planning will allow nurses and carers to understand the older persons motivation and barriers to drinking so strategies and goals can be tailored to individual residents. Moreover Mendes (2006a) suggest that when care home staff understand the type of hydration problem and identify whether the older person **Can Drink, Cant Drink, Wont Drink** or requires **End Of Life Care**

then they are able to employ targeted interventions to the most vulnerable, enabling a person-centred approach to care.

Box 1: Elements to include in care planning

- Holistic assessment should involve the older person, family and friends in establishing drinking preferences, difficulties and concerns
- Determine an individualised daily fluid intake target - use evidence –based fluid calculators, monitor & calculate daily against target and establish ‘red flags’ for intervention and referral on for medical assessment
- Highlight and specify the level of assistance, intervention and direction required to support the older persons optimal hydration
- Person Centred Care Planning to manage risks associated with hydration should include prescribed daily care, observations for early recognition of dehydration (changes in urine colour & output; drowsiness; dry skin; brittle hair; weight loss; low blood pressure) and escalated care during episodes of acute illness
- Individualise strategies to increase frequency of drinking episodes and amount of fluid ingested
- Clear guidance on how hydration requirements are identified and reviewed, and communicated with the whole team
- Patients can be confident staff will support them to safely meet their drinking needs
- Clearly state how and when staff will initiate referral to appropriate health professionals to support care e.g. GP ; Nurse Specialists; Speech & Language; Dietician ;Occupational Therapist
- Document and facilitate regular proactive medical review as health status and medications may affect hydration and thirst

Practices and interventions to support optimal fluid intake

As care home residents with dementia often have many coexisting health, sensory and functional problems it is unlikely that any single intervention would be effective in optimising fluid ingestion. However there are many approaches to encouraging older people to drink more. A recent review of the evidence hydration best practice in long term care suggests that using a multi-component range of interventions to increase fluid intake is likely to be most effective (Bunn et al, 2016).

Box 2: Hydration interventions

- Use a positive approach - some older people need to be reminded, encouraged or even convinced to drink . “Here is some nice refreshing water for you “may be more productive than “Do you want a drink?”
- Have fluid available and accessible at all times and offer regularly throughout the day (e.g. Hydration stations, fluid rounds) . Many older people prefer to drink “little and often.”
- Ensure plenty of choice and offer a range and variety of hot and cold drinks
- Make sure water is fresh and looks palatable — try adding a few slices of lemon or orange or ice cubes.
- Offer and optimise fluid ingestion at routine events such as before and after activity or medication rounds. Residents tend to drink all the water in their glass when taking tablets so offer a larger volume at this time - at least a full glass.
- Make drinking a social event and be imaginative. Good examples include coffee mornings, Mocktails, Shandy Saturdays.
- Promote social cues for drinking – non institutionalized homely environments, familiar drinking vessels, drinking vessels with strong contrasting colours.
- Consider using prompts for carers to encourage fluid intake for those at higher risk such as a picture of a drop of water near residents’ beds in kitchen areas and on resident notes.
- Provide assistance if required and ensure the care plan indicates specific person centred directions. This is especially important for those older people living with dementia and/or swallowing difficulties.
- Provide aids for drinking if needed such as adapted drinking vessels.
- Optimise fluid intake through diet – consider “wet food” e.g. ice lollies, ice cream, soups, jelly, fruit and vegetables.
- Inform and involve families and friends about the importance of promoting hydration when they visit. They can help in meeting that important hydration target.
- Older people perspire more in warmer weather therefore provide and encourage more oral fluids.
- Proactively involve health care team (GP, Specialist Nurses, Therapists) for those with high risks / dehydration episodes / functional changes / end of life care

Conclusion

Optimising hydration in the context of long term care home services for people with dementia has the potential to improve quality of life as well as safety of care (Bryant 2007, Gasper 2011). It is therefore an extremely important aspect of service

provision within care homes. Everyone has a role to play in supporting residents to drink adequate amounts of fluid and in recognising situations where they are compromised to do so.

Begum and Johnson (2009) have argued that caregivers and older people do not fully grasp the significance of adequate fluid intake or the severe consequences of dehydration. Indeed this is a topic that has been somewhat neglected. Perhaps this is because drinking is such an essential activity that is assumed that this will be priority in care settings. The incidence of suboptimal hydration and dehydration suggest otherwise. Strategies for raising staff awareness of the importance of hydration and practices to support hydration are required and should be given equal attention to other aspects of care such as nutritional support.

Supporting hydration for those with dementia requires multiple interventions. These include a policy framework that provides an infrastructure for a competent workforce, flexible and responsive hydration practices and early intervention when dehydration occurs. Many of the interventions to optimise hydration in care homes are cost neutral, primarily requiring a change in attitude and diligent competent care. Where there are cost implications such as staff time to support residents to drink, these should be recognised in the budget. Hydration is a vital aspect of care home services and there are many interventions that can be implemented to provide optimum hydration care.

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