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In this article...

- Assessment of the physical domain of health in older people
- Useful tools and tests to assess the physical health of older people
- Suggested reflective exercises based on two case studies

Assessment of older people 2: assessing the physical domain

Key points

The physical domain is one of five key domains to cover when assessing older people

Assessing the physical domain involves physical examination, medical history taking and medication review

It often involves advance care planning and assessment of pain, skin integrity and nutritional status

The aspects of physical health that need to be assessed vary with each patient

Physical assessment requires multidisciplinary input and a holistic approach

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Abstract The multidisciplinary and holistic assessment of an older patient allows health professionals to gain insight into their individual needs and therefore provide them with person-centred care. Five key domains need to be explored when assessing older people, including the physical domain. This second article in a six-part series discusses tools and strategies to assess the physical domain of health. Physical health assessment will normally involve a physical examination, medical history taking and medication review, as well as advance care planning and pain assessment. It will often include the assessment of skin integrity and nutritional status. However, many other aspects may require consideration according to individual patients' health status and needs.

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The assessment of an older person should cover, as a minimum, the five main domains of health and these include the physical domain. This article, the second of a six-part series on the assessment of older people, describes key aspects of the physical domain of health assessment, suggesting useful tools and tests and highlighting the need for a comprehensive and multidisciplinary approach.

Defining the physical domain

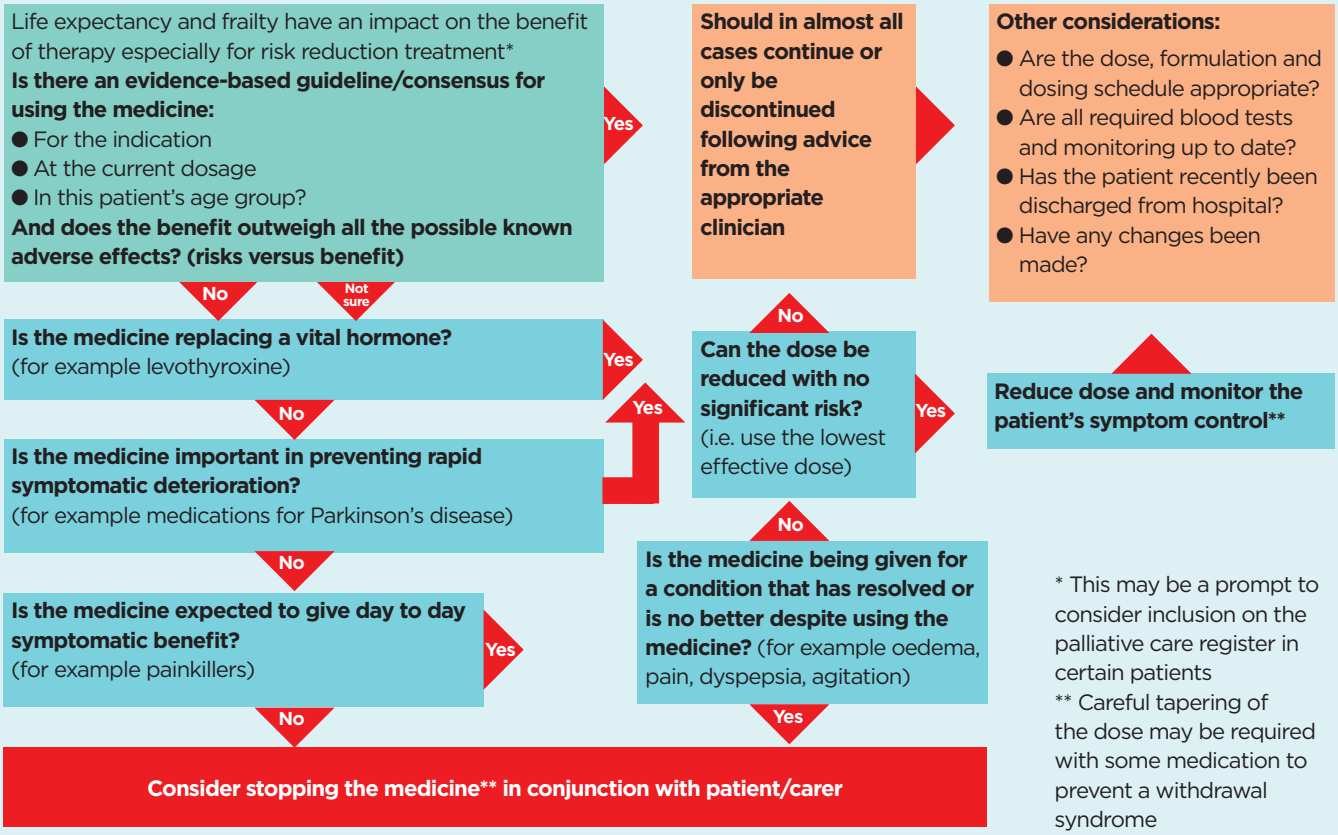
Historically, when multiple domains of health are addressed, the physical domain is mentioned first, possibly because healthcare is organised around physical illnesses and wards are set up according to physical health problems (Baumbusch et al, 2016). In relation to this, it appears that historically, the physical domain has been given prominence over the other domains, such as the psychological or social ones (Ellis et al, 2017; Welsh et al, 2014).

> *"Physical health is interlinked with all other domains of health and they all influence each other"*

Although guidelines issued by the Nursing and Midwifery Council (2018) and NHS England (2014) explain the need for assessing the physical health of older people, they do not specify which aspects need attention and to what extent they should be elaborated on. These two sets of guidelines mention the importance of multidisciplinary working when conducting comprehensive assessments of older people, but they lack detail on how each discipline could be involved. This leaves room for interpretation by the different members of the multidisciplinary team (MDT).

The physical domain focuses on the patient's physical state; for example, current conditions, medical history and

Fig 1. **Medication review process**



medication use (Welsh et al, 2014). Physical assessment and history-taking used to be done by doctors, but today, nurses and allied health professionals working in advanced and/or senior roles (for example, advanced nurse practitioner or physician assistant) may undertake these tasks (Dall'Ora et al, 2018; Prescott and Stackhouse, 2017; Royal College of Nursing, 2018). The physical domain also includes a number of assessments that are core nursing responsibilities, such as skin, nutritional status and pain assessments.

Interplay between acute and long-term issues

The physical examination of older people often goes hand-in-hand with a complex medical history, as many older people are frail and have multiple comorbidities (Fried et al, 2001). In acute, subacute and community settings, the physical examination may focus on either acute or long-term conditions, but it is important to understand that patients often present with complex needs caused by an interplay between acute and long-term health issues.

For example, a patient admitted to accident and emergency with a suspected hip fracture following a fall will be physically assessed to diagnose the fracture and establish treatment options. After surgery (if that is the treatment opted for), with support from other members of the MDT, a physiotherapist will aim to restore mobility as soon as possible. However, a patient with severe arthritis in the wrists may struggle to use a walking aid, which could have a negative impact on rehabilitation. Additionally, the reason for that patient's fall may be postural hypotension, which therefore needs be addressed to prevent future falls. Postural hypotension is a common effect of ageing, but it can also be a side-effect of certain drugs, so medication should be reviewed by a medical or a non-medical prescriber, such as a nurse or pharmacist (Unutmaz et al, 2018; National Institute for Health and Care Excellence, 2017).

Reviewing medication

Older people may be taking several drugs to treat multiple conditions (often referred to as polypharmacy). This can mean patients take several tablets a day, or that they are taking more drugs than they need – both of which can generate drug interactions and adverse effects (Maher et al, 2014; NHS Wales University Health Board, 2013). In the literature, different cut-off points have been chosen regarding the number of tablets that defines polypharmacy (Maher et al, 2014).

A systematic review by Alhawassi et al (2014) found that taking a high number of drugs is one of the factors that increases the risk of adverse drug reactions. To address that risk, it is therefore crucial to minimise the number of tablets taken by patients. NICE recommends that, in every setting, medication is regularly reviewed by the MDT to ensure that drugs are only given when necessary. Medication reviews should include active input from patients and/or their informal carers (NICE, 2017; NHS Wales University Health Board, 2013).

During medication reviews, prescribers can use the guidance issued by the NHS Wales University Health Board on prescribing for older, frail people (2013), which contains an algorithm designed to help them decide which medication – if any – can be safely stopped (see Fig 1).

Another useful tool is the Beers criteria of the American Geriatrics Society (2015), which aim to reduce the prescription of "potentially inappropriate medications". It is an evidence-based overview of medications that have resulted in adverse drug reactions in older people.

Reviewing medication appears to also have benefits in terms of costs: Unutmaz et al (2018) studied 1,579 older people whose medication was reviewed as part of comprehensive geriatric assessments and found a reduction in medication costs after the review.

Discussing advance care planning

Another aspect of the assessment of the physical domain in older people is advance care planning (Etheridge and Gatland, 2015). This involves a discussion between health professionals and patients and/or their carers regarding patients' wishes for their care in the future, when they may reach a point when they are no longer able to express their wishes or no longer have mental capacity to make decisions (NHS End of Life Care, 2008). The discussion should cover patients' wishes, preferences, values, goals, understanding about illness and prognosis, and concerns.

These are sensitive topics that patients may find difficult to address, so advance care planning requires enhanced communication skills. Patients should not feel pressured into advance care planning and their personal autonomy should be respected at all times (NHS End of Life Care, 2008).

The British Medical Association, Resuscitation Council (UK) and RCN (2016) emphasise that advance care planning should be based on a thorough and person-specific assessment resulting in person-centred care and shared decision-making. Advance care planning is an ongoing process, as a patient's condition and wishes may change over time. It can lead to a written advance care plan that will need to be shared with all health professionals coming into contact with the patient.

All patients need to be given the opportunity to be involved in the decision-making regarding their advance care planning, unless this would cause them physical or psychological harm. However, the courts have ruled that the decision to put a 'do not attempt cardiopulmonary resuscitation' (DNACPR) order in place is "ultimately a medical decision" (Etheridge and Gatland, 2015).

Assessing pain

Last year, the British Pain Society (BPS) and British Geriatrics Society (BGS) published updated guidelines on the assessment of pain in older adults (Schofield, 2018). According to these guidelines, 93% of older people experience pain and this is often viewed as something they have to live with.

Box 1. Key components of an assessment of pain

Direct enquiry about the presence of pain
- Including the use of alternative words to describe pain

Observation for signs of pain
- Especially in older people with cognitive/communication impairment

Description of pain to include:
- Sensory dimension
  - The nature of the pain (for example sharp, dull or burning)
  - Pain location and radiation (by patients pointing to the pain on themselves or by using a pain map)
  - Intensity, using a standardised pain assessment scale
- Affective dimension
  - Emotional response to pain (for example fear, anxiety or depression)
- Impact: disabling effects of pain at the levels of:
  - Functional activities (for example activities of daily living)
- Participation (for example work, social activities or relationships)

Measurement of pain
- Using standardised scales in a format that is accessible to the individual

Cause of pain
- Examination and investigation to establish the cause of pain

It has also been documented that pain in older people is under-diagnosed and under-treated (Booker and Herr, 2016), but that it has a negative impact on their health and wellbeing (Malec and Shega, 2015).

It is crucial that pain is treated or managed so that it reaches a level that is acceptable to the patient. The first step is to assess it, using a pain scale that allows the patient to score their pain, either by giving it a number or by choosing from a range of facial expressions (Booker and Herr, 2016). Pain assessment should include aspects such as location, intensity and characteristics (Malec and Shega, 2015).

Health professionals should not only use pain scales, but also ask open-ended questions during assessment. The Brief Pain Inventory allows patients to elaborate on their experience of pain and professionals to acknowledge the psychological and social impact pain can have on patients' lives (Schofield, 2018).

In a multicultural society, health professionals need to be aware of the potential language barrier to the verbal communication of pain (Schofield, 2018). Culture also appears to affect the perception of pain: Al-Harthy et al (2016) found that Saudis, Swedes and Italians had different pain thresholds. These differences in how individuals may experience and express pain mean that assessment requires a person-centred approach, where health professionals constantly aim to understand and meet individual needs (McCormack et al, 2010).

If a patient is unable to communicate about their pain due to cognitive impairment or reduced consciousness, careful observation is a valid approach. Pain can be observed in a number of ways, including by observing autonomic changes such as sweating, altered breathing and tachycardia (Royal College of Physicians et al, 2007). It can also be observed in facial expressions; in particular, an open mouth and/or narrowed eyes appear to indicate pain (Lautenbacher et al, 2018). Other signs include body movement (such as hand wringing), vocalisation (such as grunting and moaning), changes to sleeping patterns, and changes in behaviour (such as agitation, distress or confusion) (RCP et al, 2007). Box 1 lists the key components of a pain assessment.

To assess pain in patients with severe cognitive or communication impairment, health professionals can use specifically developed tools such as the Abbey Pain Scale, which consists of six categories (vocalisation, facial expression, change in body language, behavioural change, psychological change and physical changes) scored from 'absent' to 'severe'. The total score (ranging from 0-24) indicates the intensity of the pain, with a score >14 equating to severe pain (Abbey et al, 2004).

Once pain has been assessed, it is important to investigate its cause and treat it as appropriate, deciding whether pain relief medication is needed. If pain relief medication is the chosen option, regular review is needed to monitor its effect and potential side-effects. In addition, professionals need to consider the high risk of potential drug interactions (Abdullah, et al 2013).

Assessing pressure ulcer risk

Because of the effects of ageing on the human body, older people who are immobile for long periods and/or confined to bed are at increased risk of developing pressure ulcers. The Waterlow Scale (Waterlow, 2005) has been suggested by NICE (2014) as a useful assessment tool within this area of care and is used in the

Box 2. **Reflection exercise: physical domain assessment in hospital**

Bob Tomlinson* sustained a hip fracture from a fall as he was taking his wastebin out. After surgery, he is admitted to a surgical ward for recovery. He is 90 years old and lives alone since his wife's death three years ago. He has a son who lives in Australia, with whom he seems to have little contact. Mr Tomlinson desperately wants to go home. He often talks about his 10-year-old Labrador, who is being looked after by neighbours. He has started walking with a frame, but has developed continence problems and it is likely that he will require support with activities of daily living after discharge. You are one of the nurses looking after Mr Tomlinson on the ward and have been tasked with writing a care plan for him.

- Which questions would you ask Mr Tomlinson regarding his physical health?
- Which tools, tests or screening would you use to assess the physical domain?
- What other domains of health need to be assessed to ensure holistic care?
- How do Mr Tomlinson's physical issues affect the other domains of health?
- Which health professionals need to be involved in Mr Tomlinson's care?

* Not his real name.

Box 3. **Reflection exercise: physical domain assessment in the community**

Edith Myers*, who is 83 years old, receives daily visits at home from healthcare assistants to support her with her activities of daily living. Mrs Myers lives with her husband Tom and suffers from severe arthritis, heart failure and chronic kidney disease. Her daughter, Kim, has asked a GP to see Mrs Myers as she was worried about her weight loss, lack of appetite and loss of mobility. The GP has asked district nurses to attend to Mrs Myers and conduct a comprehensive assessment. The healthcare assistants have expressed similar concerns and also mentioned a category I pressure ulcer that recently appeared on Mrs Myers' sacrum. Mrs Myers still walks with a frame but seems unstable and is, thus, at high risk of falls. You are a district nurse and you have been tasked to visit Mrs Myers and to write a care plan.

- Which questions would you ask Mrs Myers regarding her physical health?
- Which tools, tests or screening would you use to assess the physical domain?
- What other domains of health need to be assessed to ensure holistic care?
- How do Mrs Myers' physical issues affect the other domains of health?
- Which health professionals need to be involved in Mrs Myers' care?
- Does Mr Myers need to be included in the care plan and, if so, what are his care needs?

* Not her real name.

Box 4. **Questions for assessing the physical health of older people**

These are examples of questions nurses can ask when assessing the physical domain. They should be combined with an observation of the patient, as well as the use of tools, tests and screening as appropriate.

- What is your medical history?
- What is your family medical history? Are there recurring illnesses in your family?
- Which medications are you currently taking? Do you take all your medications as prescribed?
- Are you allergic to anything?
- Are you in pain? Do you take regular pain relief? If so, is it effective?
- Does the pain affect your quality of life?
- How is your appetite?
- Are you able to manage with meals? Do you eat three meals a day?
- Have you lost weight recently?
- Do you have dentures? If so, do they fit well?
- Are you able to get to the toilet in time? If not, are you using continence aids? Do you have an adequate and sufficient supply?
- Do you have constipation or diarrhoea? Do you take any laxatives or diuretics?
- Do you have skin problems? Itchy skin? Dry skin? Broken skin? Red skin?
- Do you retain fluids in your legs?
- Are you quickly short of breath?

NHS to assess the risk of pressure ulcers. A number of factors – including age, gender, continence, medication and mobility – are scored (Walsh and Dempsey, 2011).

However, older people score high on the Waterlow Scale on account of their age alone (Walsh and Dempsey, 2011), so it is crucial that health professionals use it in combination with their clinical judgement (Waterlow, 2005). In addition, NICE (2014) recommends daily review of older people's skin integrity and overall health status (including nutrition and mobility), regardless of their risk level according to their Waterlow score.

Another tool showing effectiveness in assessing the risk of pressure ulcers is the Braden Scale (Pancorbo-Hidalgo et al, 2006; Bergstrom et al, 1987). This consists of six areas: sensory perception, moisture, activity, mobility, nutrition, and friction and sheer; the lower the score, the higher the risk of pressure-related skin damage (Bergstrom et al, 1987). In contrast to the Waterlow Scale, the Braden Scale does not take into account patients' age or gender, focusing instead on each individual's health specifics.

Monitoring weight and nutritional status

Unintentional weight loss in older people has been linked to increased mortality and morbidity (Gaddey and Holder, 2014). It is one of the five aspects of frailty (Fried et al, 2001) and has been linked to other aspects of health, including loss of energy, loose fitting dentures, illnesses of the thyroid and/or gastroenteric system, swallowing issues, depression and isolation (Gaddey

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and Holder, 2014). Older people's weight and nutritional status should therefore be regularly assessed.

The Malnutrition Universal Screening Tool (MUST) (Bit.ly/MUSTtool) is used in most NHS trusts to assess nutritional status in adults. However, other tools are available, including the Short Nutritional Assessment Questionnaire and the Mini Nutritional Assessment Short Form (Power et al, 2018). Limited evidence regarding the MUST's validity in older adults suggests that it has validity in that patient group (Power et al, 2018).

The MUST uses body mass index, weight loss and acute severe illness to determine an overall risk of malnutrition. This is followed by the development of a care plan based on existing guidance and local policies. Actions to be taken may include food fortification (Morilla-Herrera et al, 2016), maintenance of a food chart and/or referral to a dietitian.

Additional investigations by the MDT are needed to understand the cause of weight loss. For example, blood tests and questions and observation to determine patients' ability to feed themselves and swallow, how well their dentures fit (if worn), as well as the presence of social issues such as isolation and loneliness. The cause of weight loss can then be treated accordingly. For example, if a patient is not eating because they struggle to hold cutlery, they could be advised to use specially adapted cutlery and/or given support at mealtimes.

Conclusion

Boxes 2 and 3 offer a reflective exercise on physical health assessment based on case studies in hospital and the community. Box 4 lists questions that nurses can use to assess the physical domain of health.

When assessing the physical domain of health, a wide range of issues need to be considered and addressed by the MDT. Assessment is needed on admission to a care setting and regularly thereafter. It includes a physical examination, medical history-taking and medication review, as well as advance care planning and pain assessment. It may also include specific risk assessments focusing on skin integrity and nutritional status.

However, the different aspects of physical health assessment described in this article are only examples of what may need to be included. Each patient presents with a unique combination of problems and needs, so an exhaustive list of what aspects need to be assessed is not possible. Among the many other aspects that may require consideration are continence, breathing, digestion and balance.

It is important to keep in mind that physical health is interlinked with all other domains of health and that they all influence each other. When assessing an older person, it is therefore necessary to assess all domains of health with a view to provide holistic care. Part 3 of this series will focus on the functional domain. **NT**

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