Keywords

Eyesight/Visual impairment/
Falls risk/Falls prevention/Bedside tool

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- How poor vision increases the risk of falls in older people
- Ways to reduce hospital falls in visually impaired patients
- A new bedside tool for checking older patients’ eyesight

A bedtime tool to assess eyesight in hospital patients at risk of falls

Poor eyesight is a major factor that increases the risk of older people falling during a stay in hospital. A new bedside tool has been designed to help ward staff identify eyesight issues and take measures to prevent falls.

Older people are at greatest risk of falls and fall-related injuries, particularly in hospital where they have to cope with illness and unfamiliar surroundings (NICE, 2013). The problem is increasing, as an ageing population means hospitals are caring for rising numbers of frail, older people who have multiple long-term conditions. The NICE guideline on preventing falls in older people now includes a section on assessing and preventing patient falls during a hospital stay (NICE, 2013).

All patients aged 65 years and over, and those aged between 50 and 64 years who are at higher risk of falls due to a medical condition, should be assessed so their individual risk factors for falling in hospital can be treated, improved or managed during their stay. The aim of this is to reduce the number of acute hospital falls by 25% (NICE, 2013).
Failing eyesight
Many factors can combine to increase an older person’s risk of falling, including failing eyesight. Poor balance can be caused by reduced central and/or peripheral vision or eye movement disorders, and can lead to trips over obstacles or on stairs (College of Optometrists and British Geriatrics Society, 2011).

Studies have shown that older people fall 1.7 times more often, and sustain hip fractures 1.3-1.9 times more frequently, if they have impaired vision (College of Optometrists, 2014; College of Optometrists and British Geriatrics Society, 2011). Around 21% of the money spent on treating accidental falls in one year in the UK went to treating people with visual impairment, with 10% of falls being directly attributed to poor vision (Boyce, 2011).

Checking patients’ eyesight
Visual impairment that could be corrected by new glasses or cataract surgery is common in older people, who may not have had their eyes tested for several years. The 2015 National Audit of Inpatient Falls (NAIF) found that, while the immediate environment had been cleared from clutter and falls hazards for 88% of patients considered to be at risk, paradoxically this could increase the risk of falls – 32% of patients who needed a walking aid could not reach it (RCP, 2015).

The College of Optometrists and British Geriatrics Society (2011) recommended:

**Screening all older people undergoing falls assessment for visual impairment;**
**Giving visually impaired people a full eye examination by an optometrist;**
**Optimising the visual environment by removing physical hazards and reducing other fall risk factors for older people with impaired vision, whether it is treatable or not.**

NICE (2013) suggests checking the vision of all patients aged 65 years and older, and of those aged 50-64 years who are at higher risk of falling, even if they wear glasses, as part of their hospital falls risk assessment.

“The bedside tool can be downloaded and incorporated into a hospital’s falls risk assessment plan”

A new bedside tool
The NAIF team, in collaboration with the British and Irish Orthoptic Society, the College of Optometrists, the Royal College of Ophthalmologists, the Royal College of Nursing and NHS Improvement, has developed a bedside tool, giving staff a simple and practical way of checking older patients’ eyesight to help reduce their hospital falls risk (RCP, 2017).

Look Out! Bedside Vision Check for Falls Prevention (RCP, 2017) was designed and tested in collaboration with frontline staff and patients in acute and community hospitals. While not meant to replace expert clinical assessment, the tool helps ward staff identify problems, take immediate action to reduce a patient’s falls risk, and raise concerns with the medical team for a more formal assessment. It includes:

- Questions about patients’ eyesight;
- Simple visual tests, which can be printed on A4 paper, intended to check distance/near vision using words, or pictures for people with language difficulties;
- Visual instructions to test patients’ side vision and eye movements.

The tool also gives information about vision conditions that are common in older people and can increase the risk of having a fall (Box 1), and behaviours that can indicate eyesight problems. It supports learning in the Fallsafe (Healey et al., 2014) and CareFall (bit.ly/eLHCareFall) e-learning resources, and can be downloaded and incorporated into hospital falls risk assessment plans.

Using the questions and tests
Look Out! provides ward staff with simple questions and tests to check for eyesight problems, and recommends that staff document their findings in patients’ falls care plans.

1. Ask patients about their eyesight:
   - When was the patient’s last sight test?
   - Do they wear glasses and what for?
   - Do they have them with them and are they up to date? If the patient’s glasses are at their bedside, is the prescription up to date? If the patient’s glasses are at their bedside, is the prescription up to date? If the patient’s glasses are not with them, check if they can be located swiftly and are up to date.

Box 1. Common vision conditions that can increase falls risk

- **Cataract:** patient may have blurred and/or double vision, be affected by glare and find it difficult to see in dim or very bright lights (Fig 1)
- **Glaucoma:** due to loss of peripheral vision, the patient may be unable to see objects around them and bump into things; they may not be able to see steps or thresholds, leading to trips and falls (Fig 2)
- **Diabetic retinopathy:** patchy vision, blurry vision or ‘floaters’; the patient may have a particular difficulty avoiding obstacles or navigating stairs and steps (Fig 3)
- **Haemianopia:** loss of one side of the field of vision in both eyes often caused by stroke; the patient may bump into or miss things on the side without vision (Fig 4)
- **Age-related macular degeneration:** loss of central vision; makes it difficult to read and recognise people
- **Dementia:** can cause distorted vision, visual confusion and poor depth perception
- **Spectacles:** even use of bifocals or varifocals or an out-of-date or recently changed prescription can increase falls
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Box 2. Checking side vision

1. Compare patient’s side vision with yours (without glasses)
2. Sit with the patient looking directly at your face
3. Raise your right hand to 2 o’clock position, at bent arms length halfway between you and the patient, and wiggle your fingers
4. Ask the patient whether they can see your fingers moving while they are looking at your face
5. Repeat at the 4 o’clock position and then repeat with left hand at 8 o’clock and 10 o’clock positions

Source: Royal College of Physicians (2017)

Box 3. Examples of staff and patient feedback

“Very handy assessment, which is quick and easy.”
Staff nurse

“Allows nurses to check for themselves, pick up problems/anomalies and pass onto doctor. It also assists in identifying problems for care planning.”
Ward sister

“You have made me think when my last eye test was.”
Patient

home, ask a family member or carer to bring them in. If this is not possible, record this in the care plan as poor eyesight could compromise care;

Does the patient have any eye conditions and/or prescribed treatments (for example, eye drops for glaucoma)? Note any eye conditions and ensure any medication features on the drug chart, or ask a doctor to prescribe the necessary medication.

2. Check distance vision:

Ask the patient whether they can see the television clearly at home;

Ask the patient whether they can read words (or see images in case of language difficulties) on the distance-vision test sheet held 2 metres (one bed-length) away; if the patient has distance glasses these should be worn for this test.

3. Check near vision:

Ask the patient whether they can read newspaper print, shopping lists or medicine labels;

Ask the patient whether they can read words (or see pictures in case of language difficulties) on the near vision test sheet held in a comfortable reading position (bent arm’s length away); if the patient has reading glasses these should be worn for this test.

4. Check side vision (Box 2).

5. Check eye movements, the aim being to ascertain whether the patient has double vision or difficulty looking to the side. During these checks the patient does not need to wear glasses and should be looking directly at you.

Ask the patient whether they ever experience double vision;

Check whether the patient’s eyes are not pointing straight or jiggling around;

Hold a pen in front of you, midway between you and the patient; ask the patient to watch the pen and then move it up and down and left and right smoothly and steadily, to see whether the eyes are moving together and following the pen all the way in all directions.

Taking immediate action to ensure safer care

Staff should note all test results in the patient’s falls care plan and then:

Discuss the results with the patient and take immediate measures to prevent falls; for example, ensure the patient is wearing glasses appropriately, move the call bell and/or provide walking aid so the patient can see/reach it;

Think about the patient’s position on the ward: can they see/reach it;

Check lighting levels and bed/chair orientation;

Update the falls care plan, documenting any concerns/actions;

Speak to ward doctor if they are concerned about the results of vision checks.

Conclusion

Beyond falls prevention, the tool can lead to other improvements as poor eyesight may, for example, prevent patients from reading medical consent forms or add to confusion and distress. Staff and patients who tested the tool have given excellent feedback (Box 3). This is just a start: addressing poor eyesight to reduce hospital falls has been little studied, so more research into the effectiveness of Look Out!, as well as an exploration into its extension to other care settings, is needed.

References

For more on this topic go online...

Nurses’ role in early detection of cataracts
Bit.ly/NTCataracts
How to administer eye drops and ointments
Bit.ly/NTEyeDrops