

**Appendix 1: Quality indicators rated as valid* by expert clinical panel
(n=102). Indicators proposed by the panel are shown in bold font (n=23)**

Continuity of Care

1. ALL persons aged 65 or older should be able to identify a doctor or primary care practice that they would call when in need of medical care or should know the phone number or other mechanism by which they can reach this source of care.
2. IF a person aged 65 or older is discharged from a hospital, THEN he or she should have a follow-up visit or telephone contact within 6 weeks of discharge.
3. IF a person aged 65 or older is deaf or does not speak English, THEN appropriate assistance for communication should be provided to facilitate communication between the older person and the doctor or nurse, such as hearing aids, an interpreter, or written or translated materials.

Dementia

1. IF a person aged 65 or older has mild-to-moderate Alzheimer's disease, THEN the

treating physician should discuss treatment with a cholinesterase inhibitor with the patient and the primary caregiver (if available).

2. IF a person aged 65 or older with dementia has a caregiver (and, if capable, the patient assents), THEN the physician should discuss patient safety with the patient and caregiver, provide education on how to deal with conflicts at home, and inform them about community resources for dementia, or refer them so that this discussion can take place.

3. IF a person aged 65 or older has newly diagnosed dementia, THEN the diagnosing physician should advise the patient and the primary caregiver (if available) to notify DVLA[†] of the diagnosis.

4. IF a person aged 65 or older has mild-to-moderate Alzheimer's disease, THEN the treating physician should tell the diagnosis to the patient and the primary caregiver (if available).

Depression

1. IF a person aged 65 or older receives a diagnosis of a new depression episode,

THEN the diagnosing physician should ask on the day of diagnosis whether the person aged 65 or older had any thoughts about suicide.

2. IF a person aged 65 or older is diagnosed with clinical depression, THEN antidepressant treatment, talking treatment, or electroconvulsive therapy should be offered within 2 weeks after diagnosis unless within that period the patient has improved, or unless the patient has substance abuse or dependence, in which case treatment may wait until 8 weeks after the patient is in a drug- or alcohol-free state.

3. IF a person aged 65 or older has no meaningful symptom response after 6 weeks of treatment, THEN one of the following treatment options should be initiated by the 8th week of treatment: medication dose should be optimised (if initial treatment was medication), or medication should be initiated (if initial treatment was psychotherapy alone), or referral to a psychiatrist should be offered.

4. IF a person aged 65 or older receives a diagnosis of a new depression episode, THEN they should be offered a follow-up appointment within 4 weeks.

Diabetes Mellitus

1. IF a person aged 65 or older has diabetes, THEN his or her glycosylated haemoglobin or fructosamine level should be measured at least annually.

2. IF a diabetic person aged 65 or older does not have established renal disease and is not receiving an ACE[†] inhibitor or angiotensin II receptor blocker, THEN he or she should receive an annual test for proteinuria.

3. IF a diabetic person aged 65 or older has proteinuria not caused by a urinary tract infection, THEN he or she should be offered therapy with an ACE[†] inhibitor or angiotensin II receptor blocker.

4. IF a person aged 65 or older has diabetes, THEN his or her blood pressure should be checked at least annually.

5. ALL diabetic persons aged 65 or older not receiving other anticoagulation therapy should be offered daily aspirin therapy.

6. IF a diabetic person aged 65 or older has a fasting total cholesterol level of 5 mmol/L or greater, THEN he or she should be offered an intervention to lower cholesterol.

7. ALL diabetic persons aged 65 or older should be offered an annual dilated eye examination performed by an ophthalmologist, optometrist, or diabetes specialist.

7N. ALL diabetic persons aged 65 or older should be offered an annual eye examination by digital retinal photography or indirect retinoscopy performed by an ophthalmologist, optometrist, or diabetes specialist.

8. IF a diabetic person aged 65 or older has one additional cardiac risk factor (i.e., smoker, hypertension, hypercholesterolemia, or renal insufficiency/microalbuminuria), THEN he/she should be offered an ACE[†] inhibitor or receptor blocker.

9. ALL diabetic persons aged 65 or older should have an annual examination of his/her feet.

10. IF a person aged 65 or older has insulin treated diabetes, is self-medicating, and is admitted to hospital, THEN they should be supported to continue self-medication in hospital

Falls and Mobility Disorders

1H. IF a person aged 65 or older reported 2 or more falls in the past year, or a single fall with injury requiring treatment, THEN the physician should take a basic fall history.

1E. IF a person aged 65 or older reported 2 or more falls in the past year, or a single fall with injury requiring treatment, THEN the patient should be offered a multidisciplinary falls assessment.

2. IF a person aged 65 or older demonstrates decreased balance and/or proprioception or increased postural sway, THEN an appropriate exercise programme should be offered and an evaluation for an assistive device performed.

3. IF a person aged 65 or older is found to have problems with gait, strength (e.g., 4/5 or less on manual muscle testing or needs arms to rise from a chair), or endurance (e.g., dyspnoea on mild exertion), THEN an exercise programme or physical therapy should be offered.

4. ALL women aged 80 or older should be offered strength and balance training.

5. ALL persons aged 65 or older with balance and/or gait disturbances should be offered a multidisciplinary falls assessment.

Hearing

1. IF a person aged 65 or older has a problem with hearing, THEN he or she should be offered a formal audiological evaluation within 3 months.

2. IF a person aged 65 or older is a hearing aid candidate, THEN he or she should be offered hearing rehabilitation.

3. IF a person aged 65 or over who uses a hearing aid for any activities of daily living is admitted to hospital (or is in a care home), THEN the hearing impairment should be recognized and accommodated.

3N. IF a person aged 65 or over who has a hearing impairment is admitted to hospital (or is in a care home), THEN the hearing impairment should be recognized and accommodated.

Hypertension

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1. IF a person aged 65 or older is diagnosed with hypertension, THEN non-pharmacological therapy with lifestyle modification for treatment of hypertension should be recommended.

 2. IF a person aged 65 or older remains hypertensive after non-pharmacological intervention, THEN pharmacological antihypertensive treatment should be initiated.

 3. IF a person aged 65 or older requires pharmacotherapy for treatment of hypertension in the outpatient setting, THEN a once- or twice-daily medication should be used unless there is a need for agents that require more frequent dosing.

 - 4. IF a person aged 65 or older requires pharmacotherapy for treatment of hypertension in the outpatient setting, THEN a once-daily medication should be used unless there is a need for agents that require more frequent dosing.**

Ischaemic Heart Disease

1. IF a person aged 65 or older has established CHD[†] and LDL[†] cholesterol > 3 mmol/L, THEN he or she should be offered an intervention to lower cholesterol.

2. IF a person aged 65 or older has established CHD[†] and is not on warfarin, THEN he or she should be offered antiplatelet therapy.

3. IF a person aged 65 or older with established CHD[†] smokes, THEN he or she should be offered counselling for smoking cessation.

4. IF a person aged 65 or older has had a myocardial infarction or coronary bypass graft surgery, THEN he or she should be offered cardiac rehabilitation.

5. IF a person aged 65 or older has had a myocardial infarction, THEN he or she should be offered a beta-blocker.

Medication Use

1. IF a person aged 65 or older is prescribed a new drug, THEN the patient (or, if the patient is incapable, a caregiver) should receive education about the purpose of the drug, how to take it, and expected side effects or important adverse reactions.

2. ALL persons aged 65 or older and taking medication should have a drug regimen

review at least annually.

3. IF a person aged 65 or older is prescribed warfarin, THEN an INR[†] should be determined at least every 12 weeks.

4. IF a person aged 65 or older is prescribed an oral hypoglycaemic drug, THEN chlorpropamide should not be used.

5. ALL persons aged 65 or older should not be prescribed a medication with strong anticholinergic effects if alternatives are available.

6. IF a person aged 65 or older does not need control of seizures, THEN barbiturates should not be used.

7. IF a person aged 65 or older is treated with a non-selective NSAID[†], THEN the patient should be advised of the gastrointestinal and renal risks associated with this drug.

8. IF a person aged 65 or older is treated with a COX-2 selective NSAID[†], THEN the patient should be advised of the gastrointestinal and renal risks associated with this

drug.

9. IF a person aged 65 or over is treated with an NSAID[†] (selective or non-selective), THEN they should have a blood pressure check at least once.

10. IF a person aged 65 or over is treated with an NSAID[†] (selective or non-selective), THEN they should be asked about gastro-intestinal symptoms at least annually.

11. IF a person aged 65 or older is newly prescribed an oral hypoglycaemic drug, THEN glibenclamide should not be used.

12. ALL persons aged 65 or older and taking four or more medicines should have a drug regimen review every 6 months.

Osteoarthritis

1. IF a person aged 65 or older is treated for symptomatic osteoarthritis, THEN functional status and degree of pain should be assessed at least annually.

2. IF an ambulatory person aged 65 or older has had a diagnosis of symptomatic osteoarthritis of the knee for longer than 3 months and has no contraindications to exercise and is physically and mentally able to exercise, THEN a directed or supervised strengthening or aerobic exercise programme should have been prescribed at least once.

3. IF an ambulatory person aged 65 or older has a diagnosis of symptomatic osteoarthritis, THEN education regarding the natural history, treatment and self-management of the disease should be offered at least once.

4. IF oral pharmacological therapy is initiated to treat osteoarthritis among people aged 65 or older, THEN paracetamol should be the first drug used, unless there is a contraindication to use.

5. IF oral pharmacological therapy for osteoarthritis is changed from paracetamol to a different oral agent among people aged 65 or older, THEN the patient should have had a trial of maximum dose paracetamol (suitable for age/co-morbidities).

6. IF a person aged 65 or older with severe symptomatic osteoarthritis of the knee or hip has failed to respond to non- pharmacological and pharmacological therapy,

THEN the patient should be offered referral to an orthopaedic surgeon to be evaluated for total joint replacement within 6 months unless surgery is contraindicated.

Osteoporosis

1. ALL women aged 65 or older should be offered advice at least once regarding intake of dietary calcium and vitamin D and weight-bearing exercises.

2. ALL women aged 65 or older who smoke should be offered advice at least once about smoking cessation.

3. IF a person aged 65 or older has untreated osteoporosis, THEN calcium and vitamin D supplements should be recommended at least once.

4. IF a person aged 65 or older is taking corticosteroids at a dose of 7.5mg per day or more for more than 1 month, THEN the patient should be offered calcium and vitamin D and a biphosphonate.

5. IF a woman aged 65 or older is newly diagnosed with osteoporosis, THEN the patient should be offered treatment with hormone replacement therapy, SERMs[†],

bisphosphonates, calcitonin, or calcium and vitamin D within 3 months of diagnosis.

6. IF a person aged 65 or older with a high risk of osteoporosis has a BMD[†] 'T score' below -2.5, THEN the patient should be offered treatment with one or more of the following: alendronate, calcitonin, calcitriol, cyclic etidronate, hormone replacement therapy, raloxifene, residronate, or vitamin D and calcium.

7. IF a person aged 65 or older has had a low trauma fracture or vertebral fracture, THEN they should be assessed for the risk of osteoporosis and falls.

('Low trauma fracture' here means a fracture resulting from trauma equivalent to, or less than, a fall from standing height.)

Pain Management

1. ALL persons aged 65 or older should be asked about persistent pain at new patient visits.

2H. IF a person aged 65 or older has a newly reported chronic painful condition, THEN a targeted history should be performed within 1 month.

2E. IF a person aged 65 or older has a newly reported chronic painful condition, THEN a physical exam should be performed within 1 month.

3. IF a person aged 65 or older with chronic pain is treated with opioids, THEN he or she should be offered treatment to prevent constipation.

4. IF a person aged 65 or older has a newly reported chronic painful condition, THEN treatment should be offered.

5. IF a person aged 65 or older is treated for a chronic painful condition, THEN he or she should be assessed for a response within 6 weeks.

6. IF a person aged 65 or older is treated for a chronic painful condition, THEN he or she should be screened for depression at least annually.

Screening and Prevention

1. ALL persons aged 65 or older should be asked at least once about their history of alcohol use and standardised screening questionnaires (e.g., CAGE[†], AUDIT[†]) may be

used to screen for problem drinking.

2. ALL persons aged 65 or older should be asked about tobacco use and nicotine dependence.

3. IF a person aged 65 or older uses tobacco regularly, THEN he or she should be offered advice and/or pharmacological therapy to stop tobacco use at least once.

4. ALL persons aged 65 or older should receive an assessment of their activity level, and be advised about the benefits of regular physical activity at least once.

4N. ALL persons aged 65 or older should be advised about the benefits of regular physical activity at least once.

5. IF a person aged 65 or older has valvular or congenital heart disease, intracardiac valvular prosthesis, hypertrophic cardiomyopathy, mitral valve prolapse with regurgitation or previous episode of endocarditis and a high-risk procedure is planned, THEN endocarditis prophylaxis should be given.

6. IF a person aged 65 or older has no history of anaphylactic hypersensitivity to eggs

or to other components of the influenza vaccine, THEN the patient should be offered an annual influenza vaccination.

7. IF a smoker aged 65 or older develops pneumonia, THEN the smoker should be advised to quit smoking.

8. ALL persons aged 65 or older should be advised to have an eye evaluation every 2 years that includes the essential components of a comprehensive eye exam.

9. ALL persons aged 65 or older with chronic disease should be weighed at each medical outpatient consultation.

10. ALL persons aged 65 or older with chronic disease should be weighed at least annually.

Stroke and Atrial Fibrillation

1. IF a person aged 65 or older has atrial fibrillation > 48-hour duration and has any "high risk" condition:

- impaired left ventricle function

- female gender
- hypertension or systolic blood pressure > 160 mmHg
- prior ischaemic stroke, transient ischaemic attack, or systemic embolism,

THEN he or she should be offered oral anticoagulation therapy, or antiplatelet therapy.

2. IF a person aged 65 or older is admitted to the hospital with a diagnosis of acute ischaemic or haemorrhagic stroke, THEN he or she should be admitted to a specialized acute or combined acute and rehabilitative stroke unit, or transferred to a specialized stroke unit if such a unit is available in the hospital.

3. IF a person aged 65 or older has had a previous stroke, THEN the patient should be offered appropriate stroke prophylaxis with antiplatelet agents or warfarin.

4. IF a person aged 65 or older has had a previous stroke, THEN the patient should be offered antihypertensive medication.

Urinary Incontinence

1. ALL persons aged 65 or older should be asked by their doctor or nurse during the new patient medical or consultation about the presence or absence of urinary

incontinence.

2. IF a person aged 65 or older has new urinary incontinence that persists for over 1 month or urinary incontinence at the time of a new evaluation, THEN a targeted history should be obtained about each of the following: (1) characteristics of voiding, (2) ability to get to the toilet, (3) prior treatment for urinary incontinence, (4) importance of the problem to the patient, and (5) mental status.

3. IF a person aged 65 or older has urinary incontinence that persists for over 1 month after consulting a doctor, THEN a targeted physical exam should be performed that includes (1) a rectal exam and (2) a genital system exam (including a pelvic exam for women).

4. IF a person aged 65 or older has new urinary incontinence or urinary incontinence at the time of a new evaluation, THEN treatment options should be discussed.

5. IF a cognitively intact person aged 65 or older who is capable of independent toileting has documented stress, urge, or mixed incontinence without evidence of haematuria or high post-void residual, THEN behavioural treatment should be offered.

6. IF a person aged 65 or older has new urinary incontinence that persists for over 1 month or urinary incontinence at the time of a new evaluation, THEN a dipstick urinalysis and/or mid-stream urine sample should be obtained.

7. IF a person aged 65 or older has new urinary incontinence that persists for over one month, THEN they should be offered a full incontinence assessment.

Vision

1. IF a person aged 65 or older has sudden-onset visual changes, eye pain, corneal opacity, or severe purulent discharge, THEN the patient should be offered an examination within 72 hours by a person skilled at ophthalmic examination.

2. IF a person aged 65 or older develops progression of a chronic visual deficit that now interferes with his or her ability to carry out needed or desired activities, THEN he or she should be offered an ophthalmic examination by a person skilled at ophthalmic examination within 2 months.

3. IF a person aged 65 or older is diagnosed with a cataract, THEN he or she should be advised to have an annual assessment of visual function with respect to his or her

ability to carry out needed or desired activities.

4. IF a person aged 65 or older is diagnosed with a cataract that limits the patient's ability to carry out needed or desire activities, THEN cataract extraction should be offered.

5. IF a person aged 65 or older undergoes cataract surgery, THEN a follow-up ocular exam should occur within 7 days and re-examination should occur within 3 months.

6. IF a person aged 65 or older who has been prescribed an ocular therapeutic regimen is admitted to hospital, THEN the regimen should be administered in the hospital unless contra-indicated.

7. IF a person aged 65 or older who uses corrective lenses for any activities of daily living is admitted to hospital (or a care home) and his or her corrective lenses are at the hospital (or care home), THEN the corrective lenses should be readily accessible to the person aged 65 or older.

*Definition of valid = median greater than 6 on a scale of 1-9, with no disagreement (disagreement defined as 3 or more ratings in the 1-3 region, together with 3 or more

ratings in the 7-9 region)

†DVLA = Driver and Vehicle Licensing Agency; ACE = angiotensin converting enzyme; CHD = coronary heart disease; LDL = low-density lipoprotein; INR = international normalised ratio; NSAID = non-steroidal anti-inflammatory drug; SERM = selective oestrogen receptor modulator; BMD = bone mineral density; CAGE = have you ever felt you should Cut down on your drinking; have people Annoyed you by criticising your drinking; have you ever felt Guilty about your drinking; have you ever taken an Eye-opener?; AUDIT = alcohol use disorders identification test.
