Ambulatory Care Case-Based Reviews

Geriatric Related Considerations

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HIGH-YIELD
MED REVIEWS

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HIGH-YIELD
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Basic Rules

- Learning should be
  - Easy to understand clinically relevant
  - Evidence-based
  - Oriented to the patient but …..
- It also should be FUN

Introduction

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HIGH-YIELD
MED REVIEWS

Agenda

- Case-based review
- A special coupon code & feedback
- Live Q&A

Integrated Case-Reviews

- Case 1 -

HIGH-YIELD
MED REVIEWS

HIGH-YIELD
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Case 1

- A 67-year-old female with a PMH of HTN, CAD s/p stent x 1, HLD, hypothyroidism, osteoporosis, and chronic low back and hip pain from degenerative joint disease comes to your clinic to establish care as she and her husband recently moved to the area.
- She reports doing ok. Her only complaint is that she has started to feel more fatigued or generalized weakness with dizziness on standing over the past several months.
- Her current medications include:
  - Olmesartan, HCTZ, rosuvastatin, ezetimibe, aspirin, clopidogrel, levothyroxine, alendronate, acetaminophen, intermittent naproxen

HIGH-YIELD MED REVIEWS

Case 1

- VS:
  - P = 75, BP = 132/74, RR = 16, O2Sat = 98% on RA
  - Ht = 5 ft 6 inches, Wt = 110 lb, IBW = 140 lbs
  - BMI = 17.8
- Physical Exam:
  - GEN: Thin, elderly female that appears to be stated age. No distress but appears slow and gets dizzy with initial standing
  - CV: Normal rate, rhythm, but 2/6 systolic murmur heard loudest to the right upper sternal border
  - PULM: Nml
  - EXTREMITIES: Thin, Normal ROM. No edema, general tenderness to both hips
  - NEURO: Nml, without any apparent deficits

HIGH-YIELD MED REVIEWS

Integrated Case-Reviews

- The Primary Care Mindset in Geriatrics -

HIGH-YIELD MED REVIEWS

Case 1

- Co-morbidity considerations to be concerned about in the elderly:
  - Hypertension
    - How aggressive should we be?
    - Risks of treatment? →
      - Dizziness, falls (has osteoporosis, on ASA + clopidogrel)
        - _____ → bleed
        - _____ → accelerated decline
      - Worsening renal function and electrolyte abnormalities
      - What about the _____?

HIGH-YIELD MED REVIEWS

Case 1

- Co-morbidity considerations to be concerned about in the elderly:
  - CAD / HLD
    - Secondary prevention goals
      - Stent placed 5 years ago
      - What was her baseline LDL? Why on ezetimibe?
    - Ask when the stent was placed?
      - Duration of DAPT? 1, 6, 12 months, or longer?
    - What else is she at risk for?
      - Heart failure (likely at Stage B HF).
      - Systolic murmur? Additional RF → Needs an _____
    - Risks of Treatment
      - DDI & Medication side effects
  - Hypothyroidism
    - PK/PD of levothyroxine
      - Ramifications of undertreatment
      - Ramifications of overtreatment
        - Risk for worsening _____(secondary cause)
        - Risk of developing _____→ leading to need of anticoagulation and further risk for HF

HIGH-YIELD MED REVIEWS

Case 1

- Co-morbidity considerations to be concerned about in the elderly:
  - Osteoporosis
    - What was her baseline T-score? Get old records.
    - Patient is underweight → nutrition
    - Already suffers from pain --> can worsen chronic pain
      - Need for pain medication. See next
    - Uncontrolled hypothyroidism can worsen
    - Fall risk (bleed and fracture) + head injury (on antiplatelets)
    - Treatment considerations:
      - Fall & Fracture Risks
      - Missing therapy?
        - Ca + vit D replacement?
        - Lifestyle + exercises

HIGH-YIELD MED REVIEWS

Case 1

- Co-morbidity considerations to be concerned about in the elderly:
  - Chronic Pain (DJD)
    - Osteoporosis worsening it
    - Risk of Treatment:
      - NSAIDs with _____ → risk of bleed (GIB, head injury)
      - NSAIDs negative impact on:
        - _____ function
        - _____ control
      - _____?
        - Risk of worsening osteoporosis that then worsens chronic pain
      - Opioids
        - Risk of constipation → is that a problem?
        - Risk of falls → Has osteoporosis (break a hip) +/- head injury (bleed on DAPT)

HIGH-YIELD MED REVIEWS

Case 1

- Co-morbidity considerations to be concerned about in the elderly:
  - Others for this patient
    - Post-menopausal
    - Screenings:
      - _____: 45 – 75 yrs of age
        - Stool-based Screening:
          - High-sensitivity gFOBT or FIT every year
          - sDNA-FIT every _____ years
        - Direct Visualization Screening:
          - Colonoscopy every _____ yrs
          - CT colonography or flex-sig every _____ years

HIGH-YIELD MED REVIEWS

Case 1

- Co-morbidity considerations to be concerned about in the elderly:
  - Others for this patient
    - Post-menopausal
    - Screenings:
      - Breast cancer: 50 to 74 yrs of age; mammogram every ____ years
      - Cervical cancer: 25 to _____ yrs of age
      - Depression?
        - _____(GDS)
        - _____(DIA-S)
      - _____?
        - "The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for suicide risk in the adult population, including pregnant and postpartum persons as well as older adults. – GRADE: I"

HIGH-YIELD MED REVIEWS

Case 1

- What about MUE and medication screening using the BEERS, STOPP & START tools?
  - BEERS List by American Geriatrics Society
  - Validated tools developed for patients ≥ 65 yrs of age
  - **STOPP**
    - **S**creening **T**ool of **O**lder **P**eople's potentially inappropriate **P**rescriptions
  - **START**
    - **S**creening **T**ool to **A**lert doctors to **R**ight **T**reatments

CGA Toolkit: www.cgakit.com/m-2-stop-start

HIGH-YIELD MED REVIEWS

Case 1

- *Evidence Integration*
  - Drugs related to hospital admissions

UK Study			Systematic Review	
Drug Class	Percentage		Drug Class	Percentage
NSAIDs/ASA	29.6%		Antiplatelets	16%
Diuretics	27.3%		Diuretics	15.9%
Warfarin	10.5%		NSAIDs	11%
ACEi/ARB	7.7%		Anticoagulants	8.3%
Antidepressants	7.1%		Diabetic meds	3.5%
Beta-Blockers	6.8%		Digoxin/Inotropes	3.2%
Opiates	6.0%		CCB	2.8%
Digoxin	2.9%		Anticonvulsants	2.3%
Prednisone	2.4%			
Clopidogrel	2.4%			

Br J Clin Pharmacol 2006;63:2;136-147.
BMJ 2004;329:15-17.

HIGH-YIELD MED REVIEWS

Case 1

- STOPP Considerations

UK Study			Systematic Review	
Drug Class	**Percentage**		**Drug Class**	**Percentage**
NSAIDs/ASA	29.6%		Antiplatelets	16%
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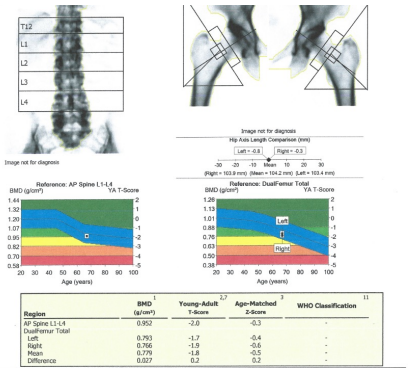
HIGH-YIELD MED REVIEWS

Case 1

- Labs (fasting):
  - CBC: NML
  - CMP: Na = 119, K = 3.7, BUN = 20, Cr = 1.1, Gluc = 98, Liver enzymes = nml
  - eGFR =
    - _____ mL/min (Stage IIIa) CKD per CKD-EPI
    - _____ ml/min (Stage IIIa) per MDRD
  - TSH = 2.1 mIU/L
  - Lipid Profile: TC = 158, HDL = 36, TG = 135, LDL = 95
  - Ca = 8.5
  - Vitamin D = _____ ng/mL
- Imaging:
  - Last colonoscopy = 60 yrs old
  - Last mammogram = 66 yrs old
  - Lumbar imaging:
    - Compression fractures showing a 23% loss of vertebral height at L2/3
  - DXA Scan:
    - Spine (L1-4): T-score = _____
    - Hip (Femoral Neck): T-score = _____

HIGH-YIELD MED REVIEWS

Example DXA Report



Region	BMD (g/cm²)	Young-Adult T-Score	Age-Matched Z-Score	WHO Classification
AP Spine L1-L4	0.952	-2.0	-0.3	-
DualFemur Total				
Left	0.793	-1.7	-0.4	-
Right	0.766	-1.9	-0.6	-
Mean	0.779	-1.8	-0.5	-
Difference	0.027	0.2	0.2	-

Case 1

- Primary Problem List:
  - Severe Hyponatremia
    - What is the likely cause?
    - Plan:
      - Disposition: Admit to the hospital
      - Stop _____ → exchange for:
        - Nothing; re-evaluate to see if it is needed at all
        - If it does, assess the dose of olmesartan to ensure max of 40 mg without compromising renal function
      - Replace sodium slowly, not to exceed an increase of ____mEq/L (some say _____mEq/L) in a 24-hour period due to the risk of _____
      - Other risk factors for CPM:
        - Chronic hyponatremia
        - Serum Na+ < _____ mEq/L

HIGH-YIELD MED REVIEWS

BNF Chapter 2. Cardiovascular System

STOP:

Digoxin:

- for heart failure with normal systolic ventricular function (*no clear evidence of benefit*).
- for left systolic ventricular dysfunction, where key interventions have not previously been tried (see START).
- at a long-term dose greater than 125 micrograms/day if eGFR less than 30 ml/min/1.73m² (*risk of toxicity if digoxin plasma levels not measured as eGFR may not be an accurate indicator of clearance*).

Thiazide diuretic with current significant hypokalaemia (i.e. serum K+ less than 3.0 mmol/L), hyponatraemia (i.e. serum Na+ less than 130 mmol/L) hypercalcaemia (i.e. corrected serum calcium greater than 2.65 mmol/L) or with recent/ concurrent gout (*hypokalaemia, hyponatraemia, hypercalcaemia and gout can be precipitated by thiazide diuretic*).

Loop diuretic:

- as treatment for hypertension (*safer, more effective alternatives available*).
- for dependent ankle oedema without clinical, biochemical evidence or radiological evidence of heart failure, liver failure, nephrotic syndrome or renal failure (*leg elevation and/ or compression hosiery usually more appropriate*).

Aldosterone antagonists (e.g. spironolactone, eplerenone), AIIRAs particularly if co-prescribed with potassium-conserving drugs (e.g. ACEIs, amiloride, triamterene) without monitoring of serum potassium (*risk of dangerous hyperkalaemia i.e. greater than 6.0 mmol/L – serum K should be monitored regularly, i.e. at least every 6 months*).

Verapamil or diltiazem with heart failure (*may worsen heart failure*).

Nicorandil if ulceration of the gastro-intestinal tract, skin or mucosa (including eyes) occurs; consider alternative treatment or specialist advice if angina worsens (*ulcers caused by Nicorandil do not respond to conventional treatment*)

ACEIs or AIIRAs

- in patients with hyperkalaemia.
- in combination with each other (*limited evidence of benefit*) – unless under specialist review and recommendation.

BNF Chapter 2. Cardiovascular System

START:

Antihypertensive therapy

- where systolic blood pressure consistently above 160 mmHg and/ or diastolic blood pressure consistently above 90 mmHg.
- If diabetic, if systolic blood pressure above140 mmHg and/ or diastolic blood pressure above 90 mmHg.

Beta-blocker or Calcium channel blocker for stable angina.

Appropriate beta-blocker with stable systolic heart failure.

ACE inhibitor with systolic heart failure and/or documented coronary artery disease.

Statin discussion with patients with known coronary heart disease, QRISK greater than 10%, diabetes type 1 or 2, or CKD with eGFR less than 60 ml/min/1.73m² consider for 85 years or over . Use Atorvastatin first line.

Lifestyle advice for prevention of cardiovascular disease:

- Smoking cessation – offer support, advice and referral to local services to all patients who smoke.
- Diet and supplements –standard healthy eating advice.
- Physical Exercise – advise patients to aim to be active daily (at least 150 minutes moderate-intensity exercise over a week).
- Alcohol – advise no more than 14 units per week for both men and women.
- Psychosocial factors –interventions may include group counselling, cognitive behavioural therapy, stress management programmes, meditation/yoga.

CGA Toolkit: www.cgakit.com/m-2-stop-start

Case 1

- Primary Problem List:
  - New systolic murmur
    - ECHO to evaluate for _____
      - Risk for: HF, orthostasis
    - How aggressively do we need to be in treating HF:
      - Do we add on a BB, ARNI, MRA, SGLT2i
      - If so, what is the risk/benefit?
  - CAD & Stent on DAPT
    - Plan:
      - Why does this otherwise healthy lady have CVD?
      - Consider bleeding risk (e.g., DAPT Score)
        - HAS-BLED, ATRIA Bleeding Risk, HEMORR2HAGES for _____
      - Ensure aspirin dose is _____mg per day
      - Consider stopping clopidogrel: Maybe consider shared decisions making if on _____-eluting stents and/or LVEF < ____%
      - Continue statin and ezetimibe

HIGH-YIELD MED REVIEWS

Anticoagulants and antiplatelets

STOP:

Aspirin:

- Long-term aspirin at doses greater than 160 mg per day (*increased risk of bleeding, no evidence for increased efficacy*).
- with a past history of peptic ulcer disease without concomitant PPI (*risk of recurrent peptic ulcer*).
- in combination with warfarin or NOACs in patients with chronic atrial fibrillation (*no added benefit from aspirin*).
- as monotherapy for stroke prevention in atrial fibrillation.

Aspirin, clopidogrel, dipyridamole, warfarin or NOACs with concurrent significant bleeding risk, i.e. uncontrolled severe hypertension, bleeding diathesis, recent non-trivial spontaneous bleeding (*high risk of bleeding*).

Aspirin plus clopidogrel as secondary stroke prevention, unless the patient has a coronary stent(s) inserted in the previous 12 months or concurrent acute coronary syndrome or has a high grade symptomatic carotid arterial stenosis (*no evidence of added benefit over clopidogrel monotherapy*).

Antiplatelet agents with warfarin or NOACs in patients with stable coronary, cerebrovascular or peripheral arterial disease (*No added benefit from dual therapy*).

Warfarin or NOACs:

- for first deep vein thrombosis without continuing provoking risk factors (e.g. thrombophilia) for longer than 6 months (*no proven added benefit*).
- for first pulmonary embolus without continuing provoking risk factors (e.g. thrombophilia) for longer than 12 months (*no proven added benefit*).

NSAID and warfarin or NOACs in combination (*risk of major gastro-intestinal bleeding*).

Direct thrombin inhibitors (e.g. dabigatran) if eGFR less than 30 ml/min/1.73m² (*risk of bleeding*).

Factor Xa inhibitors (e.g. rivaroxaban, apixaban) if eGFR less than 15 ml/min/1.73m² (*risk of bleeding*).

Anticoagulants and antiplatelets

START:

Antiplatelet therapy (one of aspirin, clopidogrel, prasugrel or ticagrelor) with a documented history of coronary, cerebral or peripheral vascular disease.

Anticoagulation – for atrial fibrillation, using the CHA_2DS_2-VASc and HAS- BLED score and discuss the risk and benefit with the patient. Offer anticoagulation to people with a CHA_2DS_2-VASc score of 2 or above (1 or above for males), taking bleeding risk into account. Anticoagulation can be either Warfarin or a NOAC.

CGA Toolkit: www.cgakit.com/m-2-stop-start

Case 1

- Other Problem List:
  - Hypothyroidism
    - Continue levothyroxine and keep TSH stable
  - Hypertension
    - Continue Olmesartan and monitor BP
  - Screenings:
    - Colon screening at age _____ (last time unless abnormal)
    - Mammogram: Next year at _____ yrs old
    - Fall risk assessment at home
    - Depression screening: negative
      - What if positive?

HIGH-YIELD MED REVIEWS

Nervous system continued:

Phenothiazines:

- in patients with epilepsy *(may lower seizure threshold).*
- As first-line treatment, since safer and more efficacious alternatives exist *(phenothiazines are sedative, have significant anti-muscarinic toxicity in older people), with the exception of prochloperazine for nausea/vomiting/vertigo, chlorpromazine for relief of persistent hiccoughs and levomepromazine as an anti-emetic in palliative care).*

Anticholinergics:

- to treat extra-pyramidal side-effects of antipsychotic medications *(risk of anticholinergic toxicity).*
- In patients with delirium or dementia *(risk of exacerbation of cognitive impairment).*

Selective serotonin re-uptake inhibitors (SSRIs) with a history of clinically significant hyponatraemia (below 130 mmol/l within the previous 2 months).

Citalopram and Escitalopram with QT-interval prolongation or with concomitant drugs that cause prolonged QT-interval.

First generation antihistamines if prolonged use (longer than 1 week) i.e. chlorphenamine, cyclizine, promethazine *(risk of sedation and anti-cholinergic side effects).*

Opiates

- Use of long-term strong opioids as first line therapy for mild-moderate pain *(WHO analgesic ladder not observed—see page 21).*
- Regular opioids for more than 2 weeks in those with chronic constipation without concurrent use of laxatives *(risk of severe constipation).*
- Long-term in those with dementia unless for palliative care or management of chronic pain syndrome *(exacerbation of cognitive impairment).*
- Long-term in those with recurrent falls *(risk of drowsiness, postural hypotension, vertigo).*
- Slow-release opioids in severe pain without short-acting opioids for break-through pain *(risk of persistence of severe pain).*

Acetylcholinesterase inhibitors with a known history of persistent bradycardia (below 60 beats/min.), heart block or recurrent unexplained syncope or concurrent treatment with drugs that reduce heart rate such as beta-blockers, digoxin, diltiazem, verapamil *(risk of cardiac conduction failure, syncope and injury).*

CGA Toolkit: www.cgakit.com/m-2-stop-start

Case 1

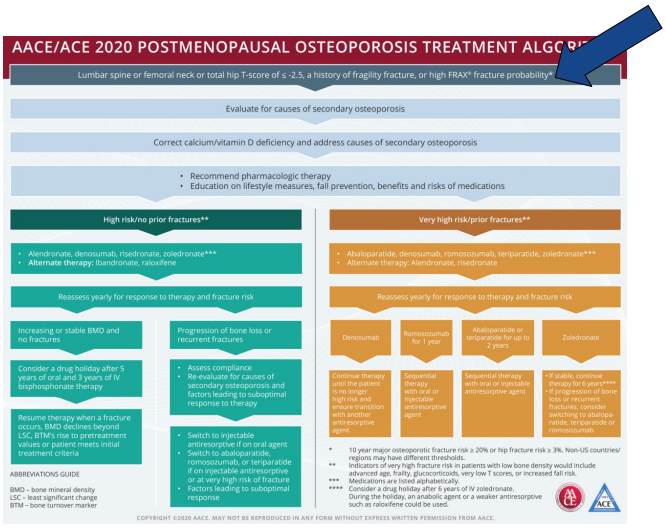
- Other Problem List:
  - Post-menopausal Osteoporosis
  - Chronic LBP and hip pain

HIGH-YIELD MED REVIEWS

Case 1

- What is our patient's risk factors for osteoporosis?
  - Age + Post-menopausal
  - Height < 5 ft 7 inches and BMI of 17
  - Imaging with _____ compression fractures
  - DXA at femoral neck: T score -2.7

HIGH-YIELD MED REVIEWS

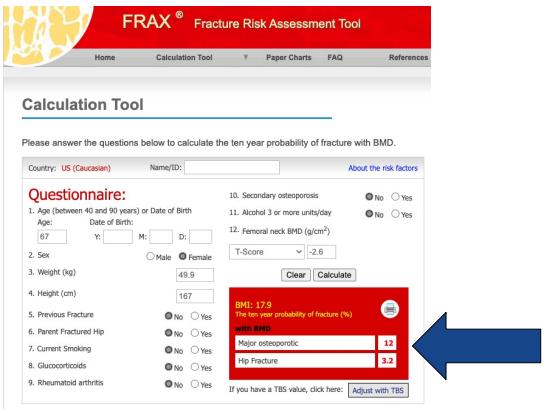


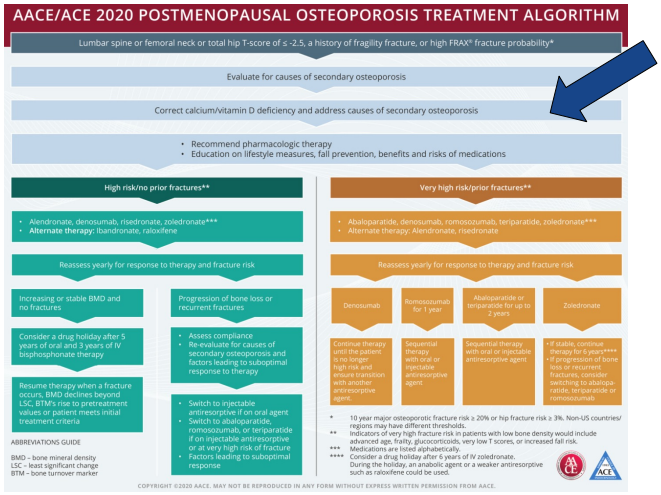
Fragility Fractures

- What are fragility fractures?
  - Typically fractures occurring from low-energy accidents
    - Example: Fall from standing
    - Types:
      - Hip fractures
      - Compression fractures of vertebral bodies of spine
      - Distal radius fractures → (_____)

HIGH-YIELD MED REVIEWS

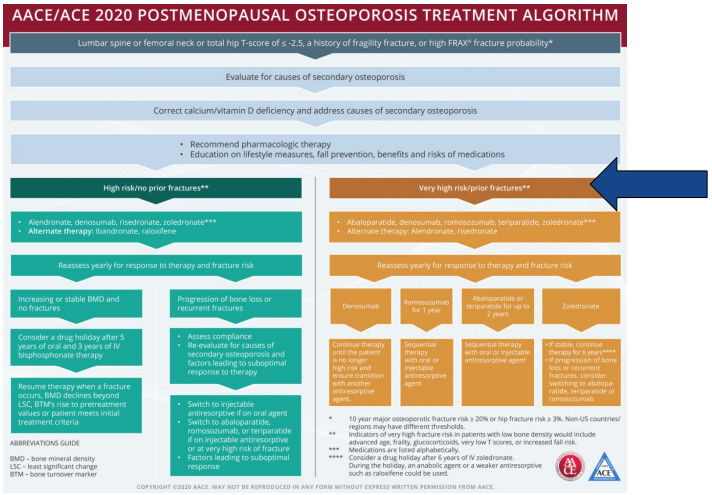
FRAX Tool



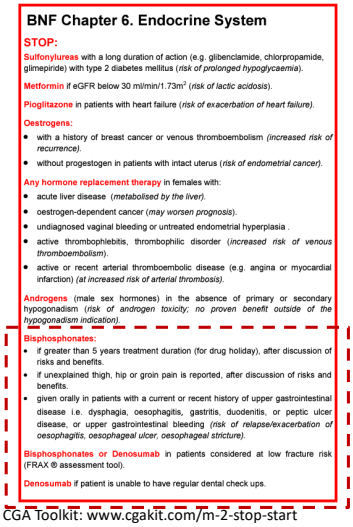


Case 1

- Other Problem List:
  - Post-menopausal Osteoporosis
    - Add on a calcium supplement
    - Patient has low vit D levels
      - Standard doses: Ca = _____ mg/d + Vit D = _____IU/d
      - Low Vit D: _____IU/day x 3-4 months and reassess
    - What about the alendronate?
  - Chronic LBP and hip pain



HIGH-YIELD MED REVIEWS



BNF Chapter 6. Endocrine System

STOP:

Sulfonylureas with a long duration of action (e.g. glibenclamide, chlorpropamide, glimepiride) with type 2 diabetes mellitus (*risk of prolonged hypoglycaemia*).

Metformin if eGFR below 30 ml/min/1.73m² (*risk of lactic acidosis*).

Pioglitazone in patients with heart failure (*risk of exacerbation of heart failure*).

Oestrogens:

- with a history of breast cancer or venous thromboembolism (*increased risk of recurrence*).
- without progestogen in patients with intact uterus (*risk of endometrial cancer*).

Any hormone replacement therapy in females with:

- acute liver disease (*metabolised by the liver*).
- oestrogen-dependent cancer (*may worsen prognosis*).
- undiagnosed vaginal bleeding or untreated endometrial hyperplasia .
- active thrombophlebitis, thrombophilic disorder (*increased risk of venous thromboembolism*).
- active or recent arterial thromboembolic disease (e.g. angina or myocardial infarction) (*at increased risk of arterial thrombosis*).

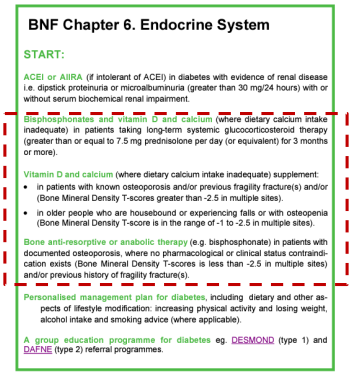
Androgens (male sex hormones) in the absence of primary or secondary hypogonadism (*risk of androgen toxicity; no proven benefit outside of the hypogonadism indication*).

Bisphosphonates:

- if greater than 5 years treatment duration (for drug holiday), after discussion of risks and benefits.
- if unexplained thigh, hip or groin pain is reported, after discussion of risks and benefits.
- given orally in patients with a current or recent history of upper gastrointestinal disease i.e. dysphagia, oesophagitis, gastritis, duodenitis, or peptic ulcer disease, or upper gastrointestinal bleeding (*risk of relapse/exacerbation of oesophagitis, oesophageal ulcer, oesophageal stricture*).

Bisphosphonates or Denosumab in patients considered at low fracture risk (FRAX ® assessment tool).

Denosumab if patient is unable to have regular dental check ups.



BNF Chapter 6. Endocrine System

START:

ACEI or AIIRA (if intolerant of ACEI) in diabetes with evidence of renal disease i.e. dipstick proteinuria or microalbuminuria (greater than 30 mg/24 hours) with or without serum biochemical renal impairment.

Bisphosphonates and vitamin D and calcium (where dietary calcium intake inadequate) in patients taking long-term systemic glucocorticosteroid therapy (greater than or equal to 7.5 mg prednisolone per day (or equivalent) for 3 months or more).

Vitamin D and calcium (where dietary calcium intake inadequate) supplement:

- in patients with known osteoporosis and/or previous fragility fracture(s) and/or (Bone Mineral Density T-scores greater than -2.5 in multiple sites).
- in older people who are housebound or experiencing falls or with osteopenia (Bone Mineral Density T-score is in the range of -1 to -2.5 in multiple sites).

Bone anti-resorptive or anabolic therapy (e.g. bisphosphonate) in patients with documented osteoporosis, where no pharmacological or clinical status contraindication exists (Bone Mineral Density T-scores is less than -2.5 in multiple sites) and/or previous history of fragility fracture(s).

Personalised management plan for diabetes, including dietary and other aspects of lifestyle modification: increasing physical activity and losing weight, alcohol intake and smoking advice (where applicable).

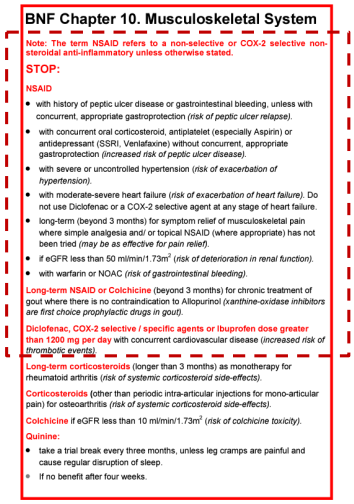
A group education programme for diabetes eg. DESMOND (type 1) and DAFNE (type 2) referral programmes.

CGA Toolkit: www.cgakit.com/m-2-stop-start

Case 1

- Other Problem List:
  - Post-menopausal Osteoporosis
    - Add on a calcium supplement
    - Patient has low vit D levels
      - Standard doses: Ca = 1,200 mg/d + Vit D = 600-800 IU/d
      - Low Vit D: 800 – 1000 IU/day x 3-4 months and reassess
    - Several options: Continue alendronate or convert to _____
  - Chronic LBP and hip pain
    - The above might help
    - Other options depends if clopidogrel was stopped → NSAIDs
      - What about celecoxib?
      - Opioids?
      - Don't forget basic lifestyle + PT/OT

HIGH-YIELD MED REVIEWS



BNF Chapter 10. Musculoskeletal System

Note: The term NSAID refers to a non-selective or COX-2 selective non-steroidal anti-inflammatory unless otherwise stated.

STOP:

NSAID

- with history of peptic ulcer disease or gastrointestinal bleeding, unless with concurrent, appropriate gastroprotection *(risk of peptic ulcer relapse)*.
- with concurrent oral corticosteroid, antiplatelet (especially Aspirin) or antidepressant (SSRI, Venlafaxine) without concurrent, appropriate gastroprotection *(increased risk of peptic ulcer disease)*.
- with severe or uncontrolled hypertension *(risk of exacerbation of hypertension)*.
- with moderate-severe heart failure *(risk of exacerbation of heart failure)*. Do not use Diclofenac or a COX-2 selective agent at any stage of heart failure.
- long-term (beyond 3 months) for symptom relief of musculoskeletal pain where simple analgesia and/ or topical NSAID (where appropriate) has not been tried *(may be as effective for pain relief)*.
- if eGFR less than 50 ml/min/1.73m^2 *(risk of deterioration in renal function)*.
- with warfarin or NOAC *(risk of gastrointestinal bleeding)*.

Long-term NSAID or Colchicine (beyond 3 months) for chronic treatment of gout where there is no contraindication to Allopurinol *(xanthine-oxidase inhibitors are first choice prophylactic drugs in gout)*.

Diclofenac, COX-2 selective / specific agents or Ibuprofen dose greater than 1200 mg per day with concurrent cardiovascular disease *(increased risk of thrombotic events)*.

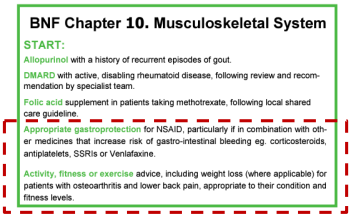
Long-term corticosteroids (longer than 3 months) as monotherapy for rheumatoid arthritis *(risk of systemic corticosteroid side-effects)*.

Corticosteroids (other than periodic intra-articular injections for mono-articular pain) for osteoarthritis *(risk of systemic corticosteroid side-effects)*.

Colchicine if eGFR less than 10 ml/min/1.73m^2 *(risk of colchicine toxicity)*.

Quinine:

- take a trial break every three months, unless leg cramps are painful and cause regular disruption of sleep.
- If no benefit after four weeks.



BNF Chapter 10. Musculoskeletal System

START:

Allopurinol with a history of recurrent episodes of gout.

DMARD with active, disabling rheumatoid disease, following review and recommendation by specialist team.

Folic acid supplement in patients taking methotrexate, following local shared care guideline.

Appropriate gastroprotection for NSAID, particularly if in combination with other medicines that increase risk of gastro-intestinal bleeding eg. corticosteroids, antiplatelets, SSRIs or Venlafaxine.

Activity, fitness or exercise advice, including weight loss (where applicable) for patients with osteoarthritis and lower back pain, appropriate to their condition and fitness levels.

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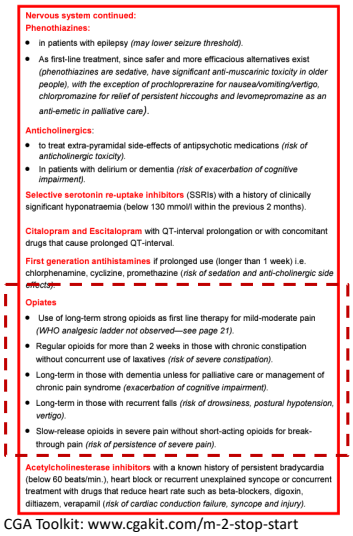


Nervous system continued:

Phenothiazines:

- in patients with epilepsy *(may lower seizure threshold)*.
- As first-line treatment, since safer and more efficacious alternatives exist *(phenothiazines are sedative, have significant anti-muscarinic toxicity in older people), with the exception of prochlorperazine for nausea/vomiting/vertigo, chlorpromazine for relief of persistent hiccoughs and levomepromazine as an anti-emetic in palliative care)*.

Anticholinergics:

- to treat extra-pyramidal side-effects of antipsychotic medications *(risk of anticholinergic toxicity)*.
- In patients with delirium or dementia *(risk of exacerbation of cognitive impairment)*.

Selective serotonin re-uptake inhibitors (SSRIs) with a history of clinically significant hyponatraemia (below 130 mmol/l within the previous 2 months).

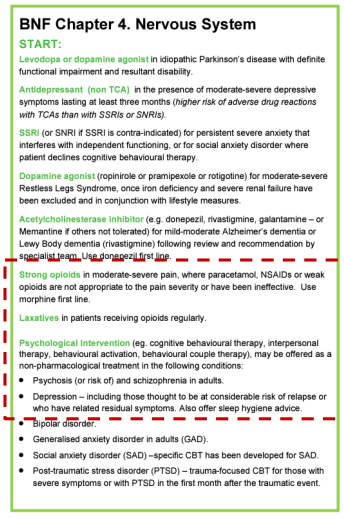
Citalopram and Escitalopram with QT-interval prolongation or with concomitant drugs that cause prolonged QT-interval.

First generation antihistamines if prolonged use (longer than 1 week) i.e. chlorphenamine, cyclizine, promethazine *(risk of sedation and anti-cholinergic side effects)*.

Opiates

- Use of long-term strong opioids as first line therapy for mild-moderate pain *(WHO analgesic ladder not observed—see page 21)*.
- Regular opioids for more than 2 weeks in those with chronic constipation without concurrent use of laxatives *(risk of severe constipation)*.
- Long-term in those with dementia unless for palliative care or management of chronic pain syndrome *(exacerbation of cognitive impairment)*.
- Long-term in those with recurrent falls *(risk of drowsiness, postural hypotension, vertigo)*.
- Slow-release opioids in severe pain without short-acting opioids for break-through pain *(risk of persistence of severe pain)*.

Acetylcholinesterase inhibitors with a known history of persistent bradycardia (below 60 beats/min.), heart block or recurrent unexplained syncope or concurrent treatment with drugs that reduce heart rate such as beta-blockers, digoxin, diltiazem, verapamil *(risk of cardiac conduction failure, syncope and injury)*.



BNF Chapter 4. Nervous System

START:

Levodopa or dopamine agonist in idiopathic Parkinson's disease with definite functional impairment and resultant disability.

Antidepressant (non TCA) in the presence of moderate-severe depressive symptoms lasting at least three months *(higher risk of adverse drug reactions with TCAs than with SSRIs or SNRIs)*.

SSRI (or SNRI if SSRI is contra-indicated) for persistent severe anxiety that interferes with independent functioning, or for social anxiety disorder where patient declines cognitive behavioural therapy.

Dopamine agonist (ropinirole or pramipexole or rotigotine) for moderate-severe Restless Legs Syndrome, once iron deficiency and severe renal failure have been excluded and in conjunction with lifestyle measures.

Acetylcholinesterase inhibitor (e.g. donepezil, rivastigmine, galantamine – or Memantine if others not tolerated) for mild-moderate Alzheimer's dementia or Lewy Body dementia (rivastigmine) following review and recommendation by specialist team. Use donepezil first line.

Strong opioids in moderate-severe pain, where paracetamol, NSAIDs or weak opioids are not appropriate to the pain severity or have been ineffective. Use morphine first line.

Laxatives in patients receiving opioids regularly.

Psychological intervention (eg. cognitive behavioural therapy, interpersonal therapy, behavioural activation, behavioural couple therapy), may be offered as a non-pharmacological treatment in the following conditions:

- Psychosis (or risk of) and schizophrenia in adults.
- Depression – including those thought to be at considerable risk of relapse or who have related residual symptoms. Also offer sleep hygiene advice.
- Bipolar disorder.
- Generalised anxiety disorder in adults (GAD).
- Social anxiety disorder (SAD) –specific CBT has been developed for SAD.
- Post-traumatic stress disorder (PTSD) – trauma-focused CBT for those with severe symptoms or with PTSD in the first month after the traumatic event.

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