Capacity for assessing/optimising patients prior to treatment – Oncogeriatric perspective

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Disclosures

- Honoraria for educational events & expert consensus work
  - ESMO
  - Janssen
  - AstraZeneca
  - Bayer

Geriatric Oncology – Optimisation of older people for cancer treatments

Cancer Services Coming of Age:
Learning from the Improving Cancer Treatment Assessment and Support for Older People Project

December 2012

WE ARE MACMILLAN. CANCER SUPPORT

ageUK — Improving later life

DH Department of Health

GSTT GOLD service

Guy's and St Thomas' **NHS** NHS Foundation Trust

- 2010-12 Pilot – address under-treatment
- CGA – assess & optimise older people for
  - *appropriate* non-surgical cancer treatment
  - not just a fitness assessment with tools
  - optimisation is key
  - Joint decision-making

UK Cancer Strategy 2015-2020

- Risk assessment should include comprehensive care pathway for older patients

2020 Geriatric Oncology services
ecancer 2020, 14:1101
https://doi.org/10.3332/ecancer.2020.1101

CGA= Comprehensive Geriatric Assessment

GOLD & cancer treatment: An approach to optimisation

REFERRALS: Oncology MDT staff – *clinical view & screening pathways*

GOLD CLINIC
- **Proactive identifying wider issues**

GOLD CLINIC – Full MDT assessment

GOLD CLINIC – Optimisation & support plan

- Older people
- Those aged 55+ **& comorbidities**
- Identify older people who **_may be vulnerable_ OR** *frail*

- Use the same tool to improve time-efficiency in CGA clinic
- *Not* to define frailty
- To identify areas needing further assessment & support

- To better define
  - Fitness
  - vulnerabilities
  - goals
  - scope for interventions

- **Optimise & improve fitness**
- **Anticipate & mitigate toxicity (or reduce impact of toxicity)**
- **Improve support**

GOLD

Comprehensive Risk Assessment and Needs Evaluation (CRANE)

PATIENT QUESTIONNAIRE

PHYSICAL HEALTH

	Yes	No	Don't know
Have you lost weight or been eating less in the last six months?	☐	☐	☐
Do you have noticeable memory problems or had episodes of feeling confused?	☐	☐	☐
In the past year, have you felt an increased sense of urgency when you need to pass urine? Have you had any episodes of leakage when you haven't made it?	☐	☐	☐
In the past year, have you felt an increased sense of urgency when you need to pass stool? Have you had any episodes of leakage when you haven't made it?	☐	☐	☐
In the past month, have you had ongoing pain that has limited your activities?	☐	☐	☐
In the past month, have you had ongoing fatigue that has limited your activities?	☐	☐	☐

PSYCHOLOGICAL NEEDS

During the past month have you often felt bothered by feeling down, hopeless, or depressed?	☐	☐	☐
During the past month have you often felt bothered by little interest or pleasure in doing things?	☐	☐	☐

PRACTICAL NEEDS

Have you had one or more falls from standing or sitting in the past six months?	☐	☐	☐

Tick the box(es) if you have difficulty with any of the following activities:
- ☐ Walking
- ☐ Food shopping
- ☐ Using the telephone
- ☐ Standing up from sitting
- ☐ Climbing stairs
- ☐ No difficulty
- ☐ Public transport
- ☐ Toilet

Do you use a walking aid?	☐	☐	☐

SOCIAL WELL-BEING

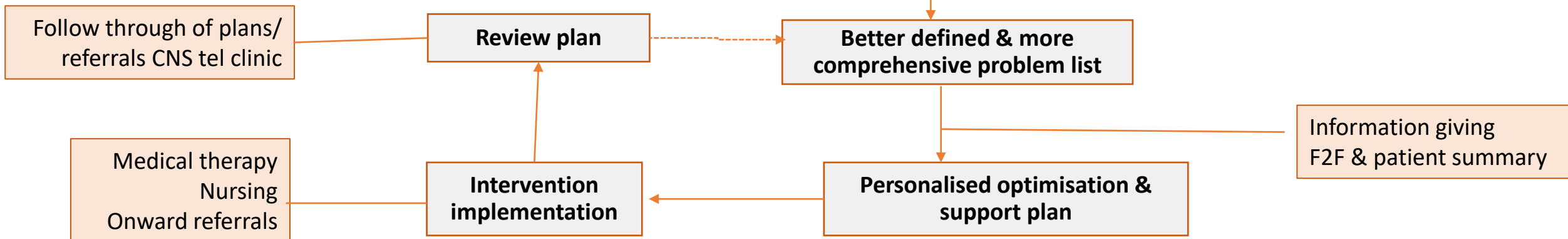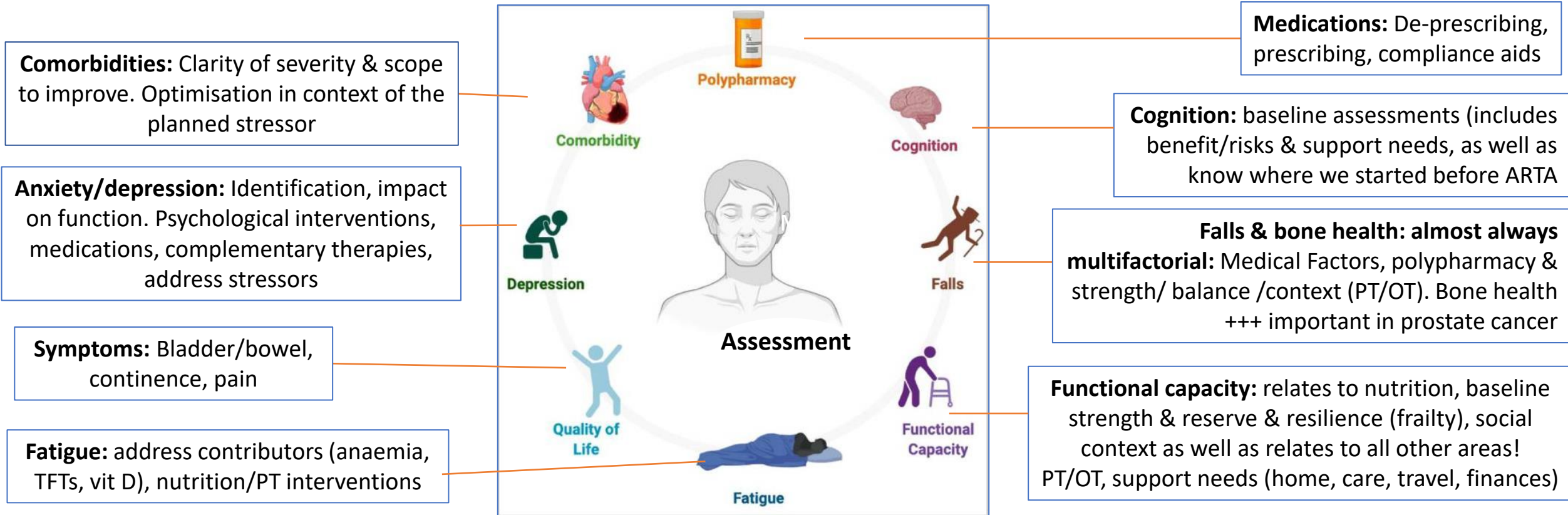| Do you live on your own?	☐	☐	☐
Is there a friend, relative or carer who can look after you for a few days if necessary?	☐	☐	☐
Do you have carers who help you?	☐	☐	☐
Are you a caregiver for somebody who depends on you, or do you own a pet?	☐	☐	☐
In the past three months, have you been admitted to hospital?	☐	☐	☐

ENVIRONMENTAL NEEDS

Do you need help with your finances?	☐	☐	☐
Do you feel safe and comfortable at home?	☐	☐	☐

Do you have any comments about your answers, or are you worried about anything else?

Optimisation and support interventions

Comorbidities: Clarity of severity & scope to improve. Optimisation in context of the planned stressor

Anxiety/depression: Identification, impact on function. Psychological interventions, medications, complementary therapies, address stressors

Symptoms: Bladder/bowel, continence, pain

Fatigue: address contributors (anaemia, TFTs, vit D), nutrition/PT interventions

Medications: De-prescribing, prescribing, compliance aids

Cognition: baseline assessments (includes benefit/risks & support needs, as well as know where we started before ARTA

Falls & bone health: almost always multifactorial: Medical Factors, polypharmacy & strength/ balance /context (PT/OT). Bone health +++ important in prostate cancer

Functional capacity: relates to nutrition, baseline strength & reserve & resilience (frailty), social context as well as relates to all other areas! PT/OT, support needs (home, care, travel, finances)

Polypharmacy

Comorbidity

Cognition

Falls

Depression

Assessment

Quality of Life

Functional Capacity

Fatigue

Follow through of plans/ referrals CNS tel clinic

Review plan

Better defined & more comprehensive problem list

Medical therapy
Nursing
Onward referrals

Intervention implementation

Personalised optimisation & support plan

Information giving
F2F & patient summary

GOLD - CGA interventions

The impact of comprehensive geriatric assessment interventions on tolerance to chemotherapy in older people

T Kalsi*,1,2, G Babic-Illman1, P J Ross3, N R Maisey3, S Hughes5, P Fields5, F C Martin1,2, Y Wang2 and D Harari1,2

Intervention domain	Intervention group % (N=65)
Fatigue	49.2% (32/65)
Anaemia	43.1% (28/65)
Nutrition	36.9% (24/65)
Response to abnormal test	35.4% (23/65)
Bladder	32.3% (21/65)
Cardiac	24.6% (16/65)
Pain	23.1% (15/65)
Diabetes intervention	21.5% (14/65)
Medication change	18.5% (12/65)
HTN	16.9% (11/65)
Bowels	16.9% (11/65)
Social	15.4% (10/65)

Intervention domain	Intervention group % (N=65)
Postural hypotension	13.8% (9/65)
Renal	12.3% (8/65)
MSK	12.3% (8/65)
Falls	12.3% (8/65)
Mood	10.8% (7/65)
Referral to specialist	10.8% (7/65)
Memory	9.2% (6/65)
Respiratory	9.2% (6/65)
Hearing	6.2% (4/65)
Peripheral neuropathy	6.2% (4/65)

Evidence for Geriatric Oncology model of care

Study	Primary Outcome	Secondary Outcomes
Pilot pre & post study: *Kalsi et al* 2015, *BJC* DOI: 10.1038/bjc.2015.120 • **Geriatrician-delivered CGA** vs usual care	• Grade 3–5 toxicity rate 43.8% *vs* 52.9%, p=0.292 • **More completed treatment as planned 33.8% *vs* 11.4%, OR 4.14, *P*=0.006**	• **Fewer treatment modifications 43.1% *vs* 68.6%, OR 0.34, *P*=0.006** • Death at 6 months: no differences
GAP70+ Cluster RCT: *Mohile et al* 2021, Lancet DOI: 10.1016/S0140-6736(21)01789-X • **Providing oncologists with GA summary/ recommendations**	• **Less grade 3-5 toxicity 51% vs 71%. RR 0.74, p=0.0001**	• **More dose reductions at the outset 49% vs 35%, RR 0.81, p=0.01** • **Fewer falls RR 0.58 (p=0.0035)** • **More meds discontinued**
INTEGRATE RCT: *Soo et al* 2022, The Lancet (Healthy Longevity) https://doi.org/10.1016/S2666-7568(22)00169-6 **Geriatrician-led CGA** interventions vs usual care	• **Improved HRQOL at all time points up to 24 weeks**	• **Fewer unplanned hospital admissions (Incidence rate 0.6 (CI 0.42-0.87), *p*=0.0066)** • Survival: no difference
GAIN RCT *Daneng et al* 2021, JAMA Oncol DOI: 10.1001/jamaoncol.2021.4158 • **MDT-delivered CGA** interventions vs usual care	• **Reduced grade 3-5 toxicity 50.5% vs 60.6%, p = 0.02**	• **Improved advance directive completion 28.4% vs 13.3%, p<0.001** • No differences in ER visits/LOS/hospitalisations/ survival

GERICO RCT *Lund et al* 2021. BJC
https://doi.org/10.1038/s41416-021-01367-0
• **CGA with interventions**
	• **Chemotherapy completion without dose reductions or delays 45% in intervention group vs. 28%, p= 0.0366**	• **Severe toxicity 28% vs 39% (0.156)**
		• Survival: no difference
		• **Quality of life (QoL)**
		  • **Reduced disease burden (0.048)**
		  • **Improved mobility (0.008)**

Treatment landscape for advanced & metastatic prostate cancer
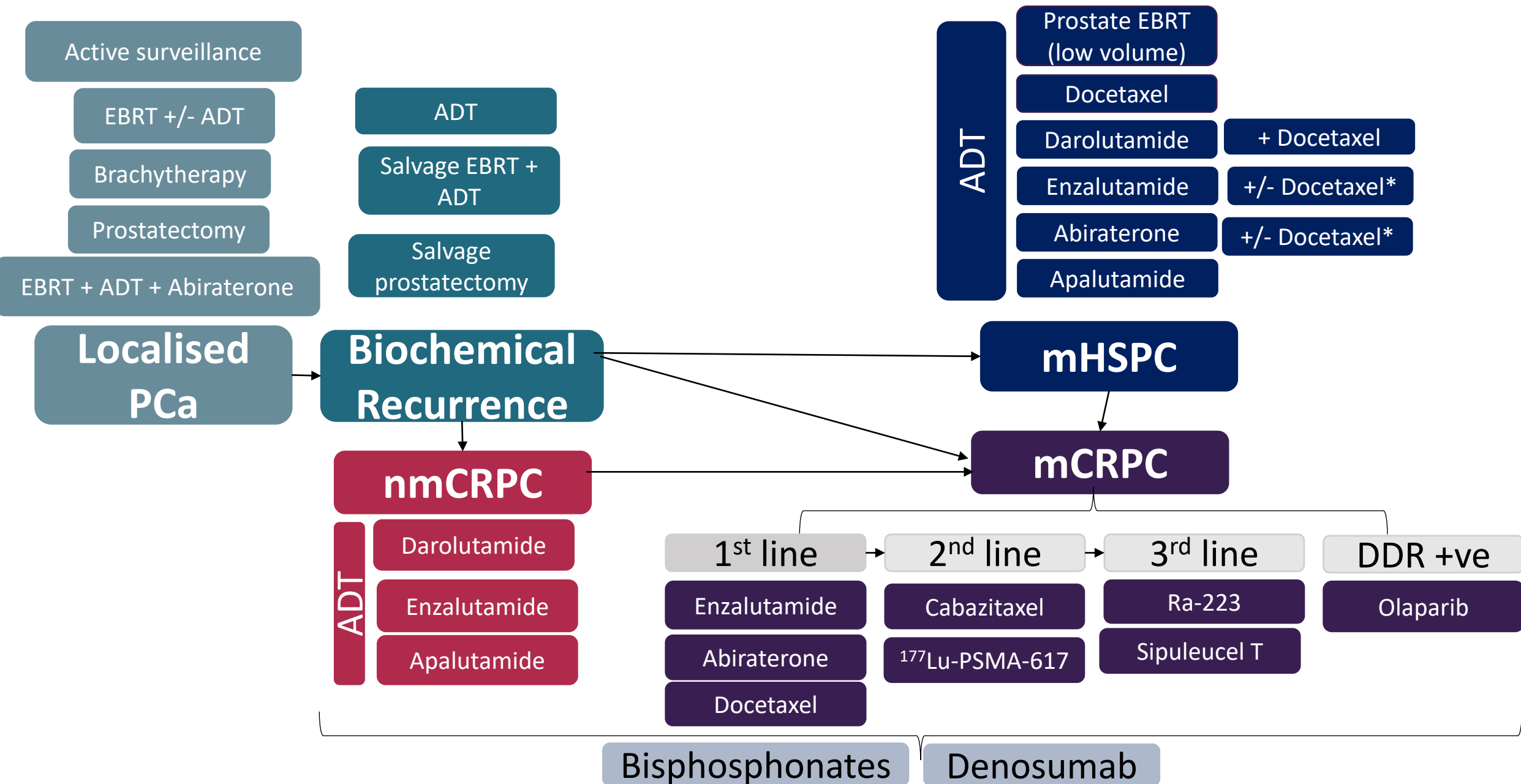
Hormone Therapy – working with Prostate Cancer CNSs

Prostate CNS to identify patient on ADT or watchful waiting

↓

Identify if patient is aged 70 or above

↓

Prostate CNS to complete an EPR referral to GOLD

(please include "ADT patient" in the referral text)

↓

GOLD appointment will be usually booked in 2-3 weeks, unless urgent
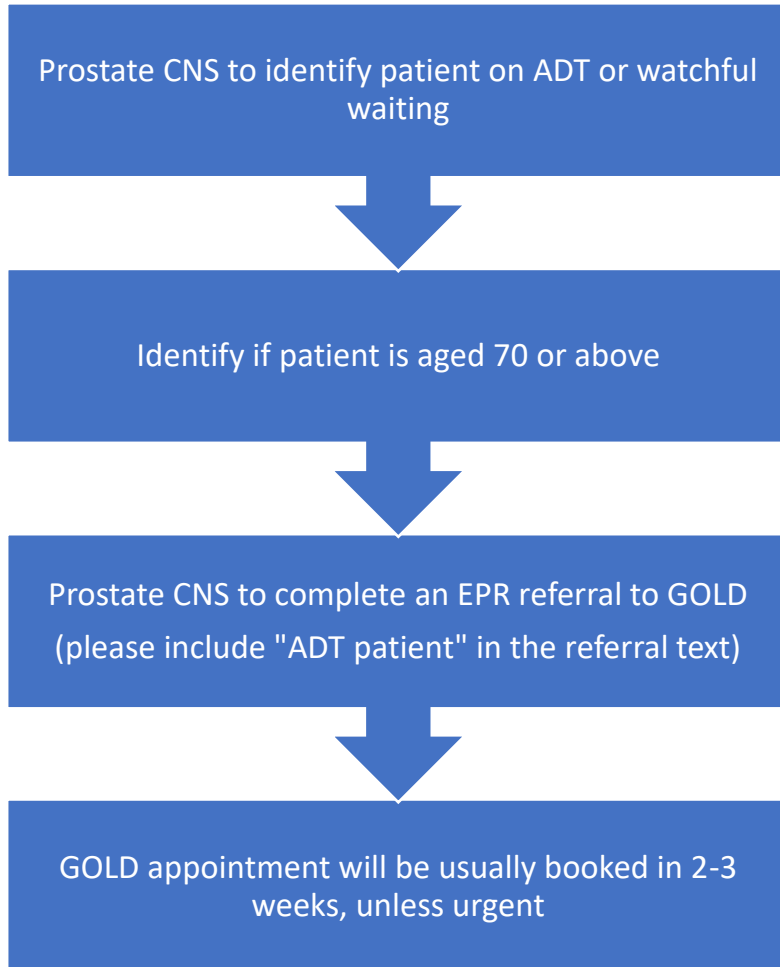
- **Cardiovascular –** ECG, lipids, BP, smoking cessation, obesity, diabetes

- **Fatigue pathway** - incl anaemia, mood, strength and balance, breathing, mood, nocturia, sleep hygeine

- **Continence/LUTS**

- **Physio / OT in clinic assessment** - supervised resistance and aerobic exercise to reduce fatigue and improve quality of life.

- **Gynaecomastia / body image /hot flushes / weight management**

ADT – Falls & bone health

ADT increases fracture risk[1]
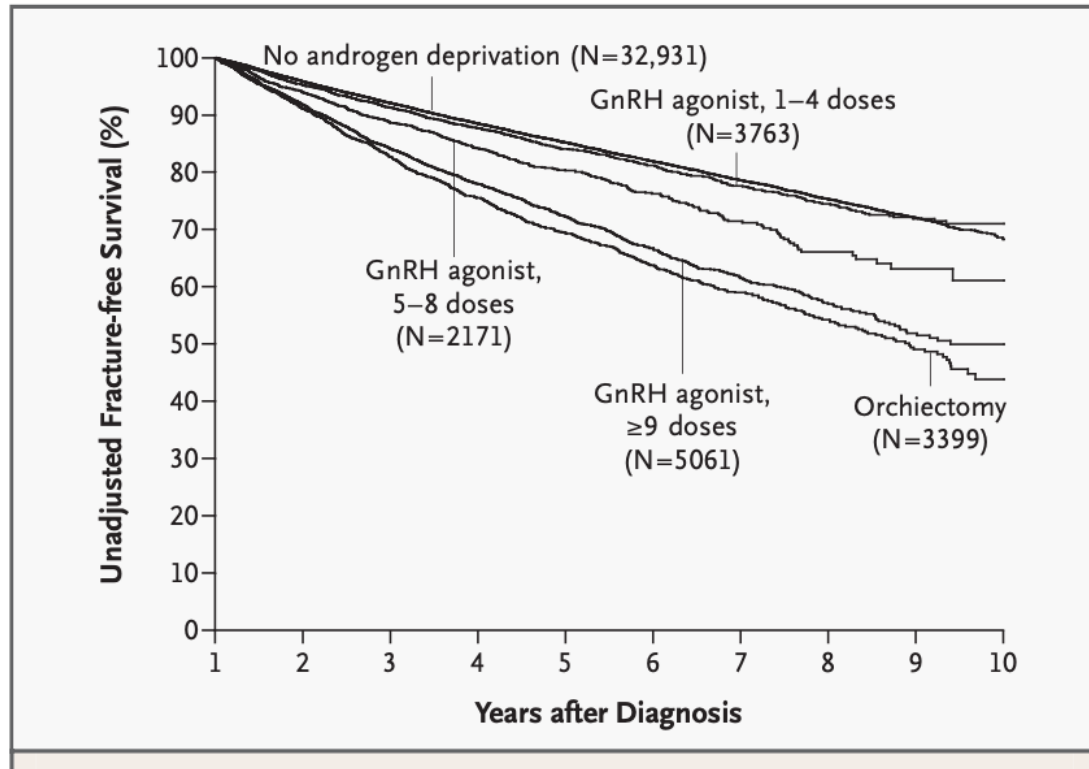
Bone protection – baseline DEXA, ca/vit D, bisphosphonate (IV zol given in clinic), osteoporosis FU

Falls prevention – postural drop, vision, OT/PT in clinic

[1] Shahinian, V. B., Kuo, Y. F., Freeman, J. L., & Goodwin, J. S. (2005). Risk of fracture after androgen deprivation for prostate cancer. *N Engl J Med, 352*(2), 154-164. doi:10.1056/NEJMoa041943

ARTA

Abiraterone

1 every 3-4 patients

Sando-K®
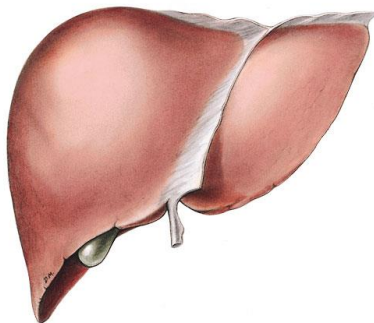
Enzalutamide,Apalutamide

EEG during seizure

1 every 3-4 patients
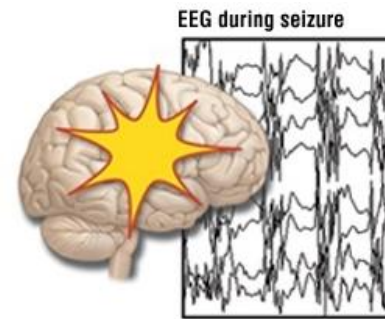
Abiraterone/prednisolone

- THINK DIABETES - Oncology/steroid diabetic pathway

- THINK PROACTIVE HYPERTENSION CARE -monitoring & interventions

- Cardiovascular risk and optimisation

- Leg oedema – varicose eczema leg elevation PT for lymphoedema

- 3/4 fatigue higher in elderly – fatigue pathway

- Muscle and bone density loss

ARTA – Falls & fracture

Falls - PREVAIL 75+ more falls (19.2%v7.2%), fractures (15.8%v9.9%), decreased appetite (22.1% v15.9%), and asthenia (17.0% v10.6%). – falls assessment, prehab, bone health, polypharmacy

Hypertension: Home BP monitoring with regular CNS calls/adjustments

Cognition: baseline assessments & monitoring (important for all treatment modalities

Relative risk of any fracture with ARSI+SOC compared to SOC only in mHSPC

Study or Subgroup	Experimental Events	Total	Control Events	Total	Weight	Risk Ratio M–H, Random, 95% CI
4.5.1 mHSPC						
STAMPEDE Arm G	0	948	0	960		Not estimable
LATITUDE	7	597	5	602	4.3%	1.41 [0.45, 4.42]
ARASENS	49	654	33	652	26.2%	1.48 [0.97, 2.27]
TITAN	54	524	26	527	23.9%	2.09 [1.33, 3.28]
ARCHES	77	576	31	574	29.2%	2.48 [1.66, 3.69]
ENZAMET	44	562	16	563	16.4%	2.75 [1.57, 4.82]
Subtotal (95% CI)		3861		3878	100.0%	2.06 [1.62, 2.62]
Total events	231		111			

Heterogeneity: Tau² = 0.01; Chi² = 4.56, df = 4 (P = 0.34); I² = 12%
Test for overall effect: Z = 5.92 (P < 0.00001)

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Test for overall effect: Z = 5.92 (P < 0.00001)
Test for subgroup differences: Not applicable

Risk Ratio M–H, Random, 95% CI

0.01   0.1   1   10   100
Favours SOC+ARSI   Favours SOC

RR 2.06
(95% CI 1.62-2.62; p<0.00001, 6 RCTs, N=7,739)

Jones et al. Fracture and fall risk in men with advanced or metastatic prostate cancer treated with novel androgen receptor signalling inhibitors: a systematic review and meta-analysis of randomised controlled trials. EAU 2023

Radiotherapy

Radiotherapy Pathway

- Multiple hospital visits for RT

- Address patient focussed concerns
  - fear of incontinence on public transport
  - financial cost of travelling to hospital
  - wife with dementia
  - OA hip/SOB lying flat painful

- LUTS – free NHS pads, toilet card (public access), skin care, fluids, PFEs

- Faecal incontinence/radiation proctitis – anal sphincter exercises, pelvic tone, loperamide

- Fatigue / Prehab exercise
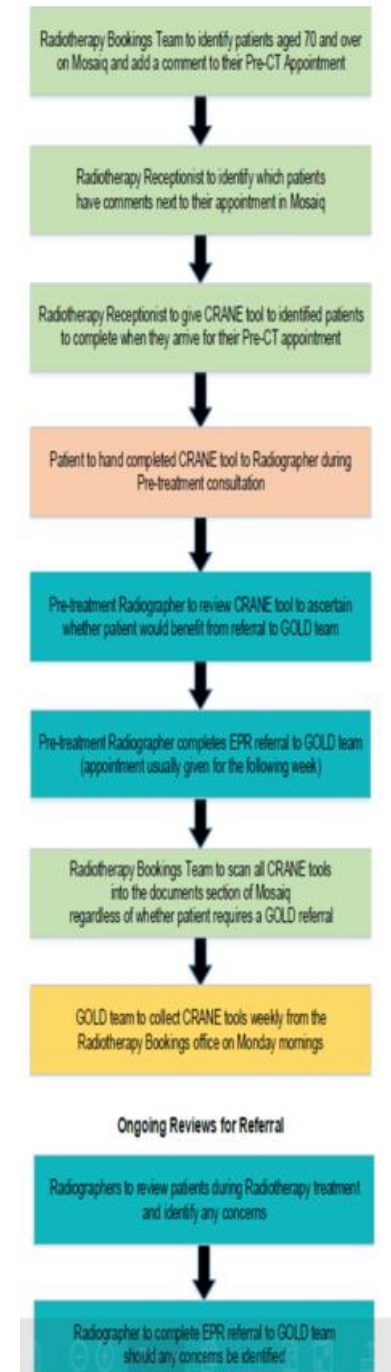
Docetaxel

- Cardiac & fitness assessments

- General pre-chemo optimisation strategies

- Diabetes screening and BM monitoring with steroids

Risk assessment for hyperglycaemia during chemotherapy/radiotherapy with steroids

High risk
- On insulin (type 1 or type 2)
OR
- HbA1c ≥ 60
OR
- Patient-reported CBG ≥ 15 at home
(pre-chemo or later)

Intermediate risk
All **people with** diabetes who do not meet the high risk criteria **OR**
- HbA1c 48-59 and previously undiagnosed diabetes
OR
- Patient-reported CBG ≥ 11 at home
(pre-chemo or later)

Low risk
Patients with HbA1c <48

Monitor HbA1c every 3 months

Oncology to refer to Diabetes HOT clinic via EPR (state likely chemo start date on referral)

Oncology to refer
AGE<55: Oncology to refer to Diabetes HOT clinic via EPR (state likely chemo start date on referral)
AGE 55+: to GOLD via EPR (state likely chemo start date on referral & request "same week" on urgency tab)

Diabetes team initiate bespoke management & monitoring plan

GOLD team enhanced monitoring and management plan

HbA1C monitoring through subsequent chemotherapy cycles every 3 months
Review of CBG with each HbA1c check
Reassess risk with criteria above and refer if required.

Geriatric Oncology without a GOLD service available? What can you do?

- NPCA 2023 report:
  - *22% have Geriatric Oncology services*
  - *Still patchy*

- Current financial climate in the NHS challenging

- **Create similar framework with less can be done!**

Principles of CGA

Screening → Assessment → Intervention → Follow through → Screening
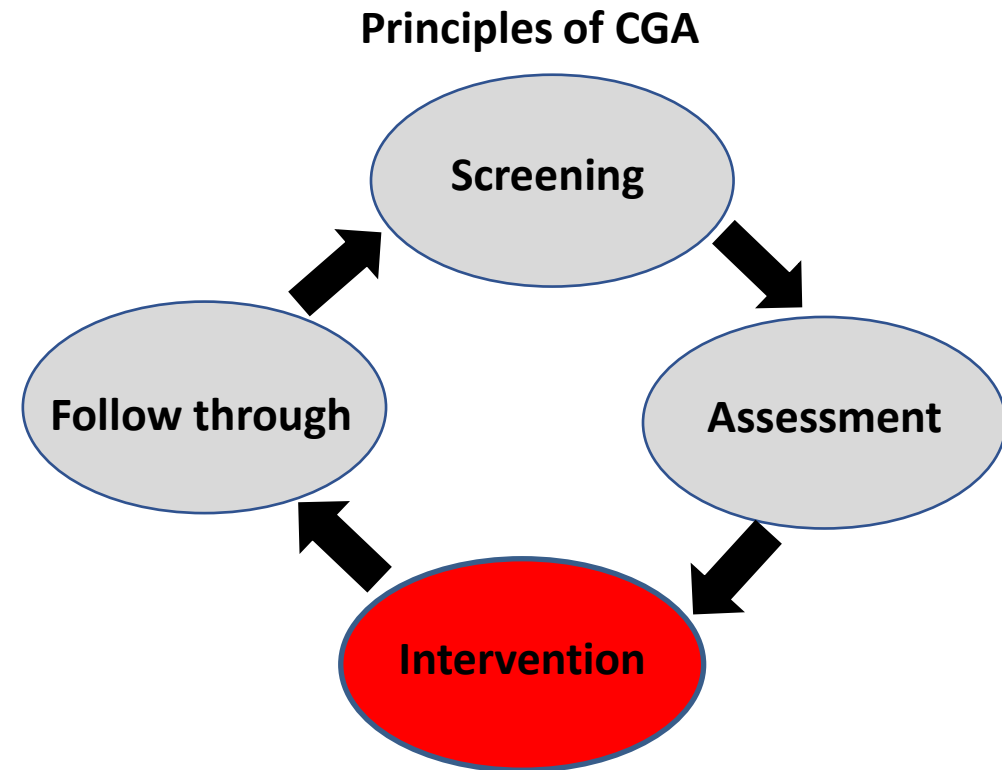
CGA approach without GOLD?
Step 1: ACTIVE SCREENING for wider issues outside cancer

Identify vulnerabilities & frailty – has to be brief!

e.g. Clinical Frailty Scale, G8, questionnaires – identify groups of people who **MIGHT** be vulnerable and needs further assessment

1 **Very fit** – People who are robust, active, energetic and motivated. These people commonly exercise regularly. They are among the fittest for their age.

2 **Well** – People who have **no active disease symptoms** but are less fit than people in category 1. Often they exercise or are very active occasionally, eg seasonally.

3 **Managing well** – People whose **medical problems are well controlled**, but are **not regularly active** beyond routine walking.

4 **Vulnerable** – While **not dependent** on others for daily help, often **symptoms limit activities**. A common complaint is being "slowed up" and/or being tired during the day.

5 **Mildly frail** – These people often have **more evident slowing**, and need help in high order IADLs (finances, transportation, heavy housework, medications). Typically mild frailty progressively impairs shopping and walking outside alone, meal preparation and housework.

6 **Moderately frail** – People need help with **all outside activities** and with **keeping house**. Inside they often have problems with stairs and need **help with bathing** and might need minimal assistance (cuing, standby) with dressing.

7 **Severely frail** – **Completely dependent** for personal care, from whatever cause (physical or cognitive). Even so, they seem stable and not at high risk of dying (within ~6 months).

8 **Very severely frail** – Completely dependent, approaching the end of life. Typically, they could not recover even from a minor illness

9 **Terminally ill** – Approaching the end of life. This category applies to people with **a life expectancy of <6 months**, who are not otherwise evidently frail.

Scoring frailty in people with dementia
The degree of frailty corresponds to the degree of dementia. Common **symptoms in mild dementia** include forgetting the details of a recent event, though still remembering the event itself, repeating the same question/story and social withdrawal.
In **moderate dementia**, recent memory is very impaired, even though they seemingly can remember their past life events well. They can do personal care with prompting.
In **severe dementia**, they cannot do personal care without help.
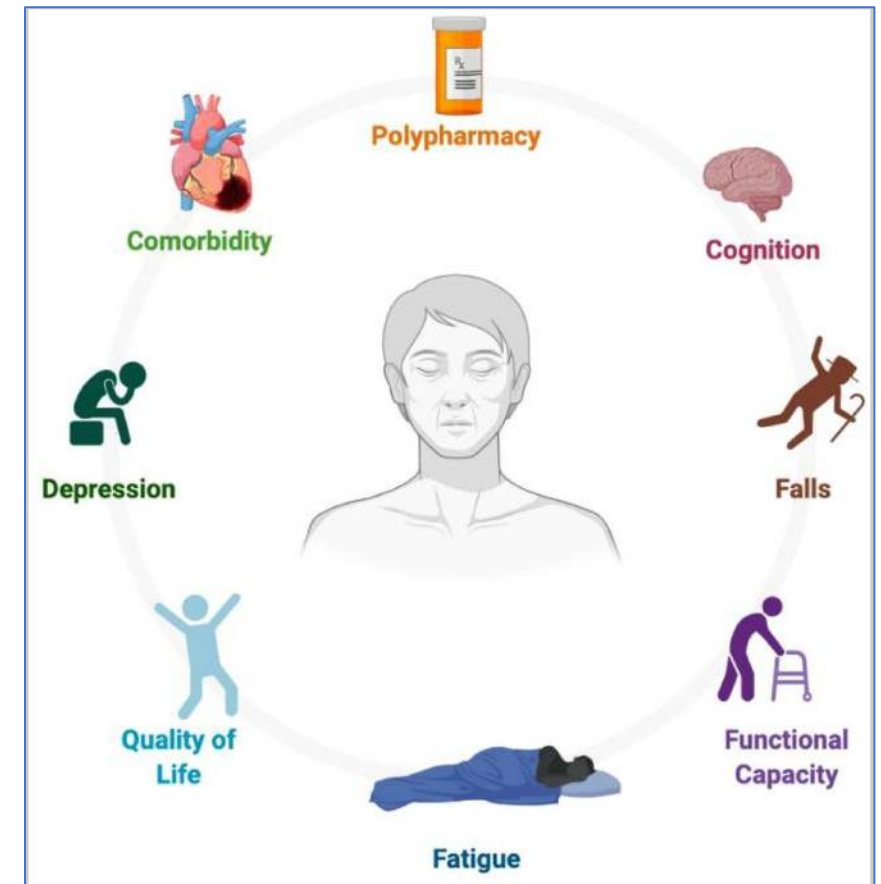
CGA approach without GOLD?
Step 2: Assessment, Interventions & follow through

Optimisation of at risk patients can be part-protocolised with local service mapping. Create SOPs/training for

- Anaemia, fatigue
- Managing key comorbidities
- Bone health
- Continence management
- ADT risk assessment
- ARTA risk assessment
- Steroid-induced hyperglycaemia
- Strength & balance, falls PT
- Mental health support pathways
- Pathways to memory clinic

	History and reading	
Blood pressure	Known hypertension	Yes/No
	BP:	
Cholesterol level	Known raised cholesterol	Yes/No
	Chol level	
Diabetes screen	Known diabetic:	Yes/No
	HbA1C:	
Heart disease	Known heart disease	Yes/No
	ECG:	
Osteoporosis screen	Vit D:	
	Calcium:	
	DXA scan:	
	Previous fragility fracture:	Yes/No
BMI		

Summary: Capacity for assessing/optimising patients prior to treatment

- Prostate cancer patients are old, you are all Geriatricians!
- You can identify unseen vulnerabilities **IF** you actively look for it
- You can better assess, risk mitigate & optimise for specific cancer treatments and this approach does improve tolerance to treatment (RCT evidence) – NUANCE to **stressor** AND **person**
- Increasingly recognised with Geriatric Oncology services across the UK with different models
- No service? No problem! Start small, test, learn & scale up to local context. Can do a lot with very little!