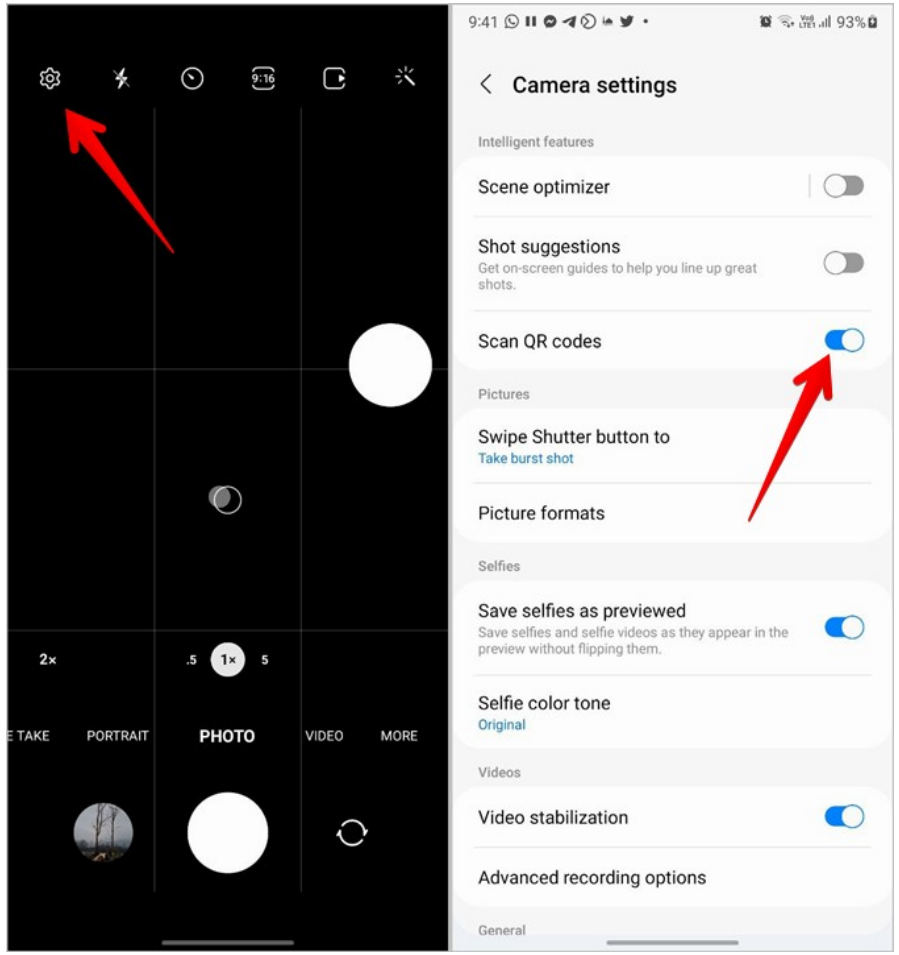
SCAN THE FOLLOWING QR CODE & ANSWER THE QUESTION



An Introduction to Geriatric Rheumatology: Synergizing Care for a Better Outcome

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District General Hospital - Matara

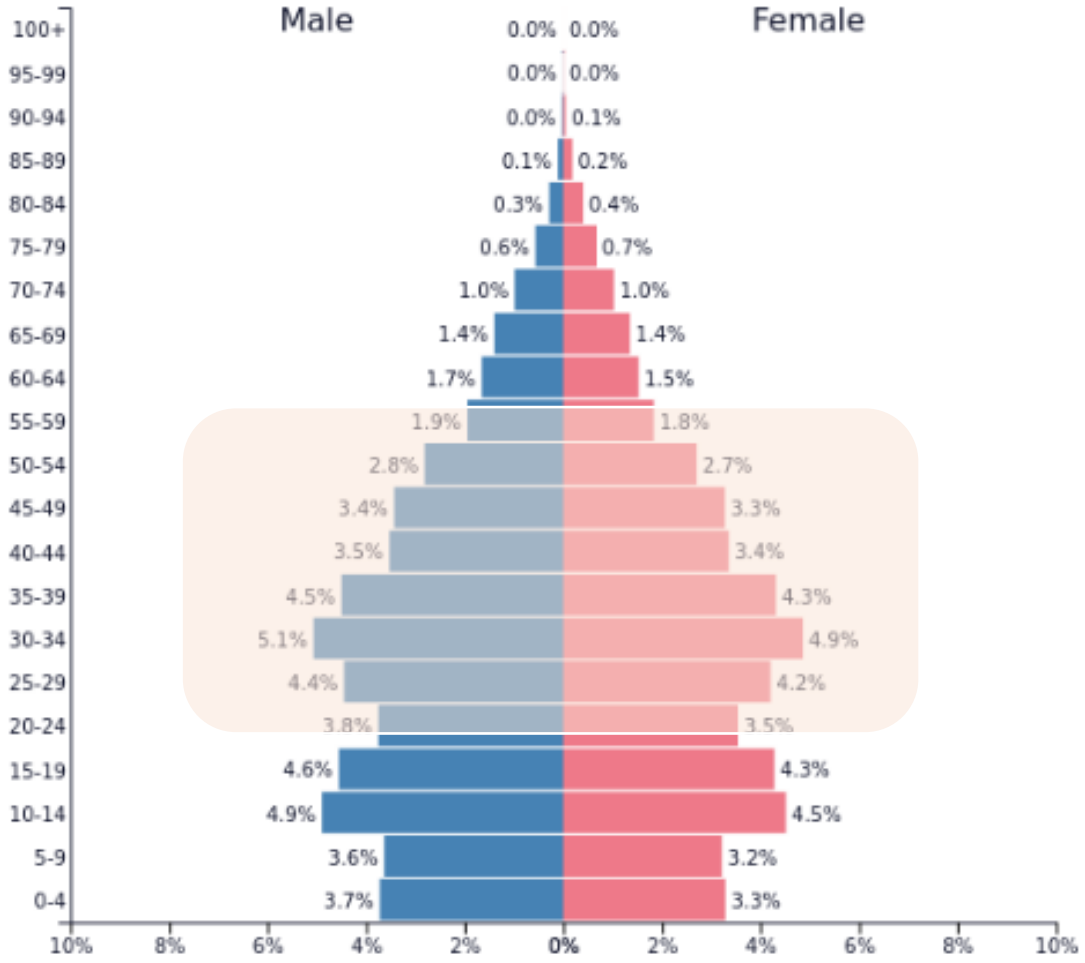
A tale as old as time…

- Aging
- Life expectancy evolving through time
- Inflammageing and frailty
- A brief overview of musculoskeletal disorders in the elderly
- Some ongoing problems among older rheumatology patients in Sri Lanka
- Assessment needs of a geriatric rheumatology patient
- Collaborative care

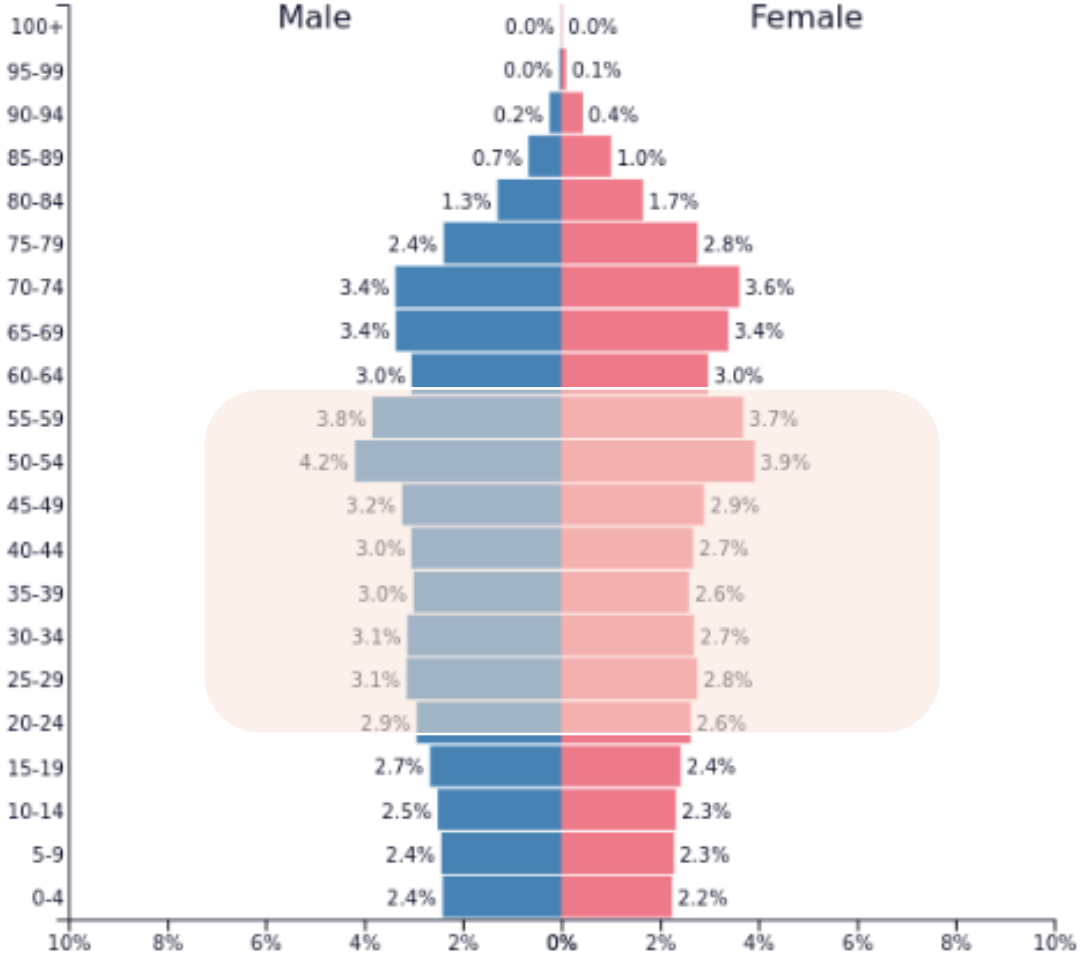
The Aging Population

- Number of people aged 60 years and older were 1 billion in 2019.
- Expected to exceed 2.1 billion by 2050.
- WHO states that older people commonly suffer from hearing loss, cataracts, **arthritis**, COPD, diabetes, and dementia.
- Additional years spent, opportunities to contribute to society, new jobs.
- The **limiting factor for this is their health**.

China 2002 → 2042

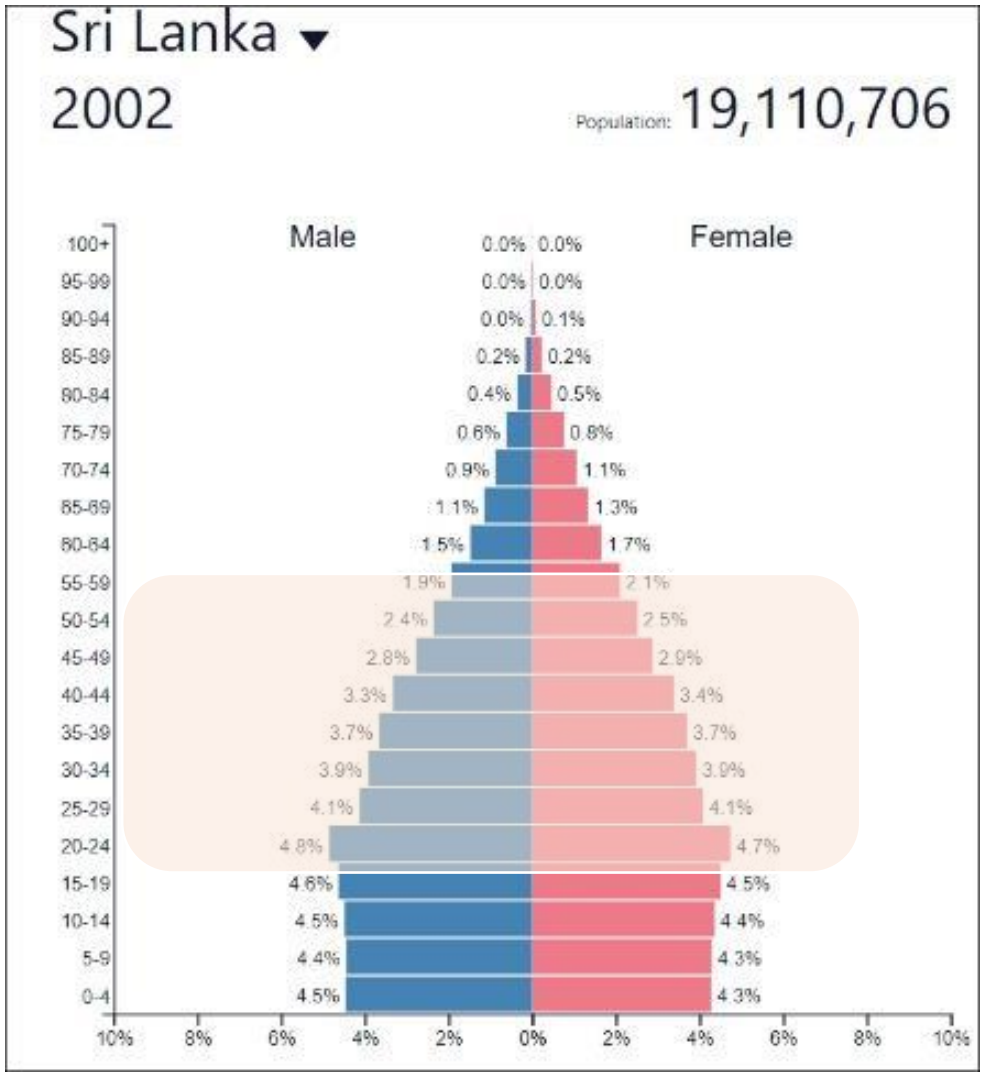


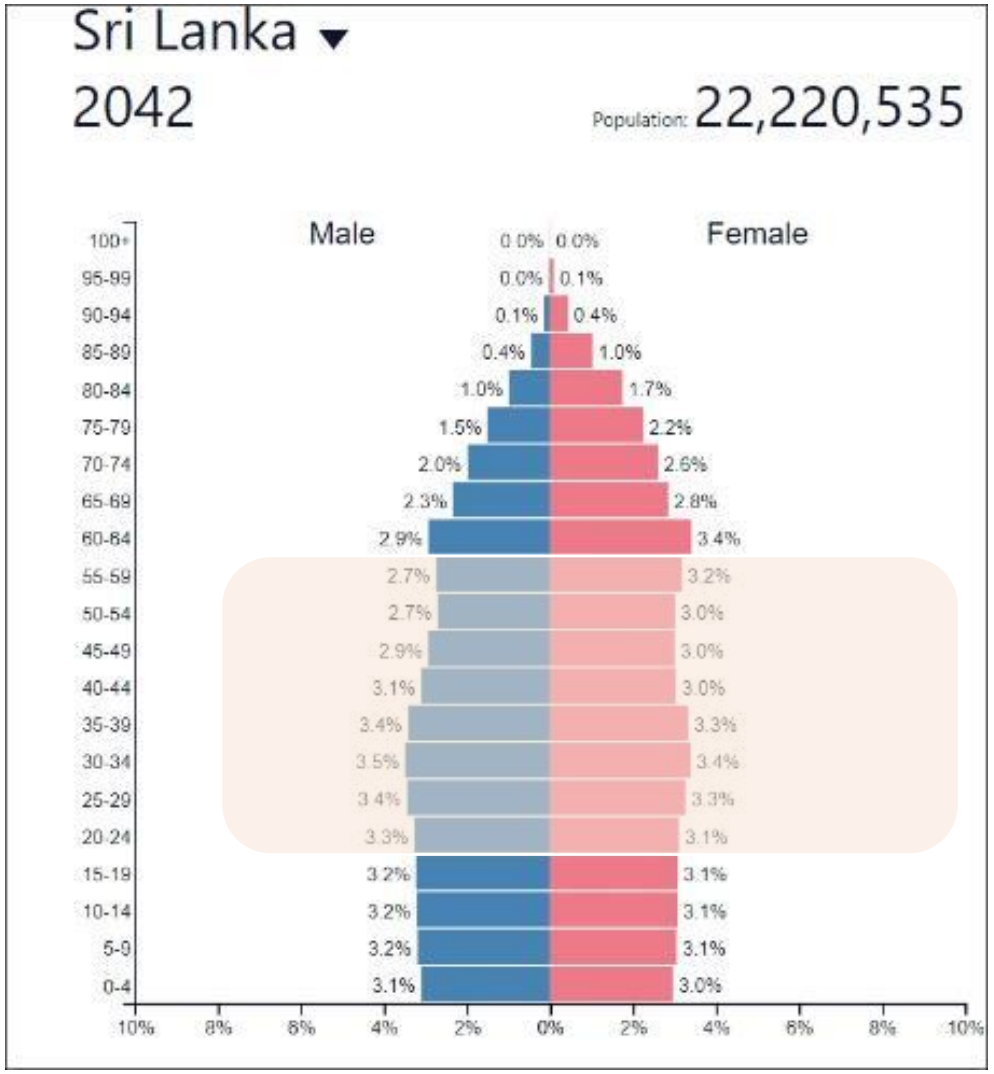
China - 2002
Population: **1,307,352,255**



China - 2042
Population: **1,442,035,132**

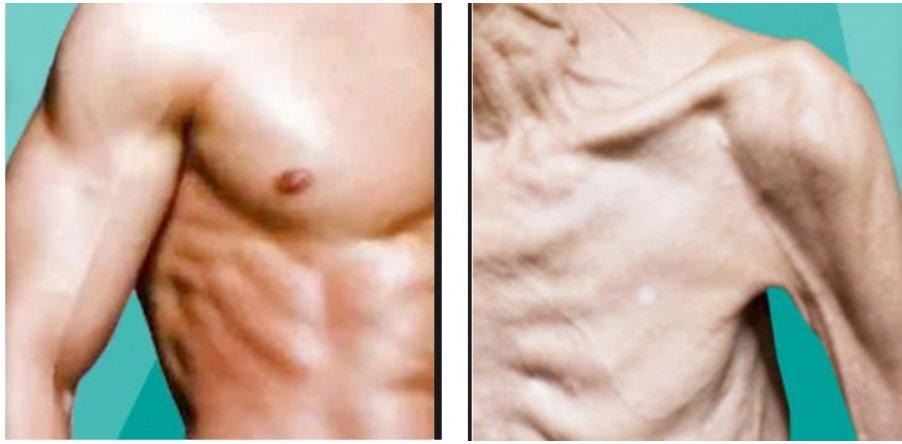
Sri Lanka 2002 → **2042**





Sarcopenia

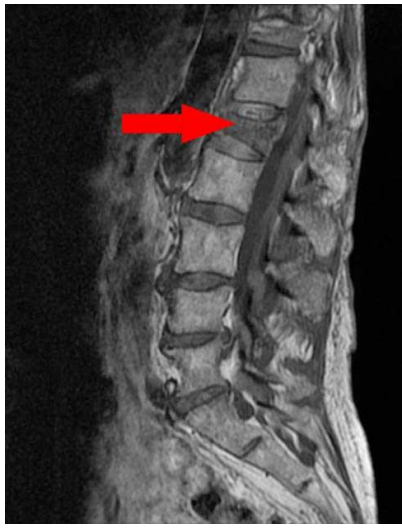
- Begins as early as the 4th decade of life
- Skeletal muscle mass and skeletal muscle strength decline in a linear fashion
- 50% of mass being lost by the 8th decade of life



Walston JD. Sarcopenia in older adults. Curr Opin Rheumatol. 2012 Nov;24(6):623-7. doi: 10.1097/BOR.0b013e328358d59b. PMID: 22955023; PMCID: PMC4066461.

Bone density

- Peak bone mass and size is achieved around the age of 15–20 years in women and later in men
- Slow rate of decline in bone mineral density (aBMD) in both sexes beginning at age 40



Demontiero O, Vidal C, Duque G. Aging and bone loss: new insights for the clinician. Ther Adv Musculoskelet Dis. 2012 Apr;4(2):61-76. doi: 10.1177/1759720X11430858. PMID: 22870496; PMCID: PMC3383520.

Joint degeneration and osteoarthritis

- Most people do not develop symptoms until significant joint damage has occurred, commonly after age 50-60 years,
- But there is radiographic evidence for OA in a significant percent of women beginning in the early 40's

Loeser RF. Age-related changes in the musculoskeletal system and the development of osteoarthritis. Clin Geriatr Med. 2010 Aug;26(3):371-86. doi: 10.1016/j.cger.2010.03.002. PMID: 20699160; PMCID: PMC2920876.

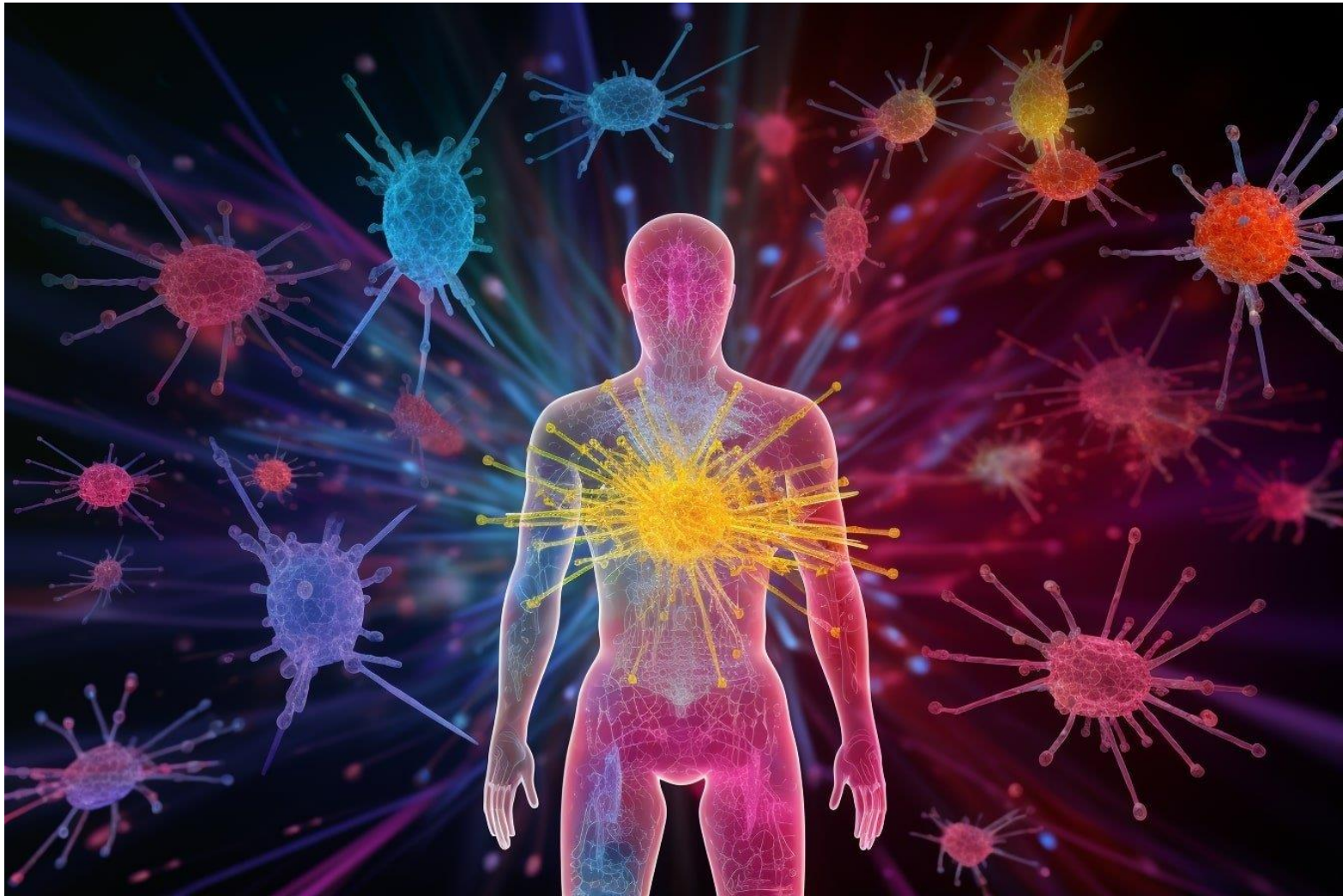
How our lifespans have evolved….

	First Encounter	Second Encounter	Third Encounter
Starting date	200 000 BCE	About 1850	Late 20th century
Era	Natural environment	Industrial era	Leisure era
No. of human generations	8000	7	3
Human life expectancy, y	33	43–65	>80
Public health challenges	Basic survival	Pollution and man-made hazards	Genetic mismatch and indifference
Leading public health challenges	Infectious diseases; starvation; dehydration; maternal/fetal mortality; murder; accidents	Air pollution; sewage/water pollution; industrial toxins; smoking; motor vehicle accidents	Obesity; diabetes; hypertension; anxiety/depression/suicide; myocardial infarction/stroke; degenerative diseases

Goldman L. Three Stages of Health Encounters Over 8000 Human Generations and How They Inform Future Public Health. Am J Public Health. 2018 Jan;108(1):60-62. doi: 10.2105/AJPH.2017.304164. PMID: 29211524; PMCID: PMC5719695.


HAPPY
40
TH
BIRTHDAY

Inflammageing



Inflammageing

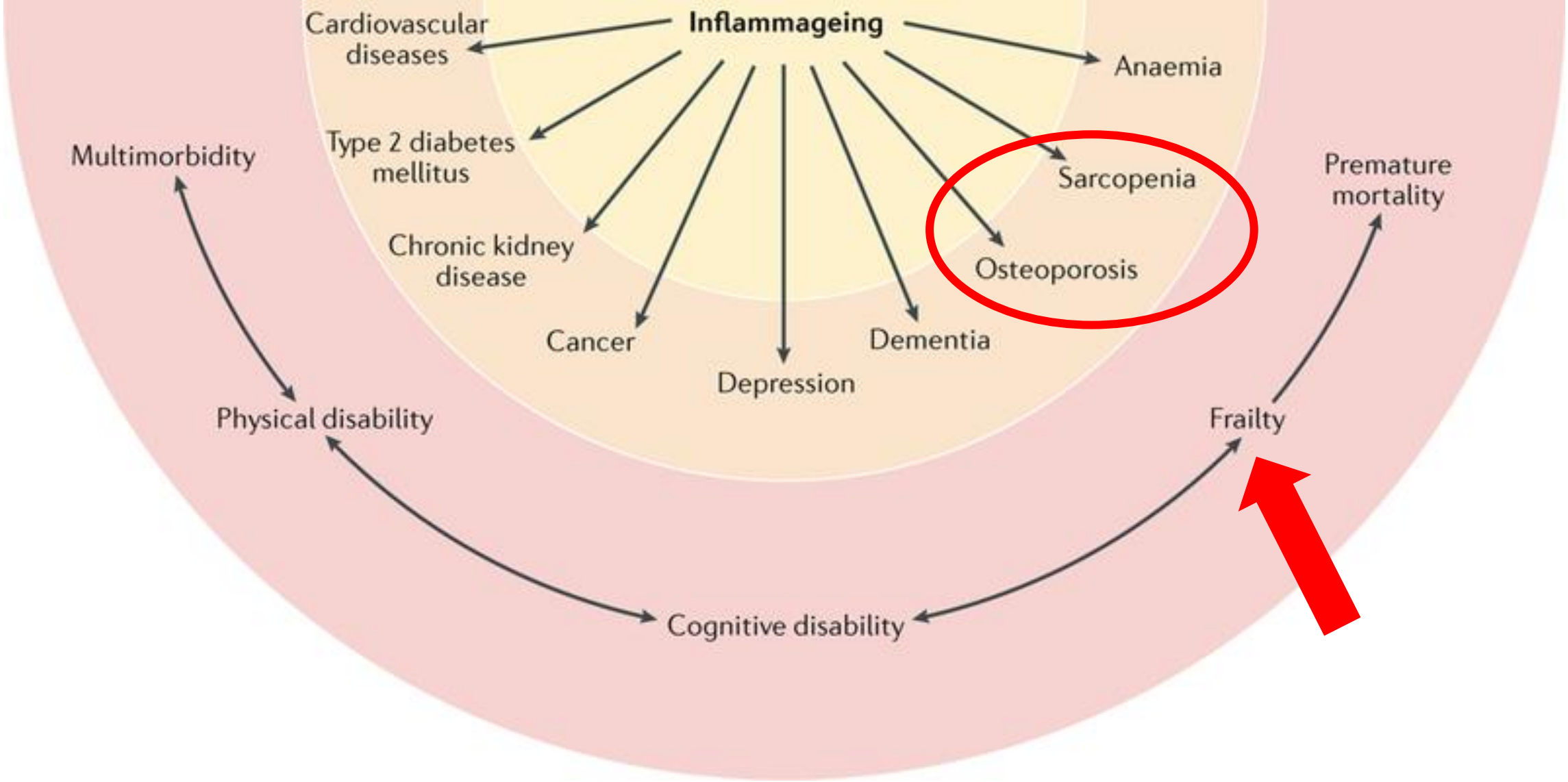
- A condition characterized by elevated levels of blood inflammatory markers - carries high susceptibility to chronic morbidity, disability, frailty
- Thymic involution→decrease in naïve T cells
- With aging these cells become more exhausted → produce a substantial amount of pro-inflammatory cytokines and mediators → stimulate other cells to become metabolically active

Fulop T, Larbi A, Pawelec G, Khalil A, Cohen AA, Hirokawa K, Witkowski JM, Franceschi C. Immunology of Aging: the Birth of Inflammaging. Clin Rev Allergy Immunol. 2023 Apr;64(2):109-122. doi: 10.1007/s12016-021-08899-6. Epub 2021 Sep 18. PMID: 34536213; PMCID: PMC8449217.

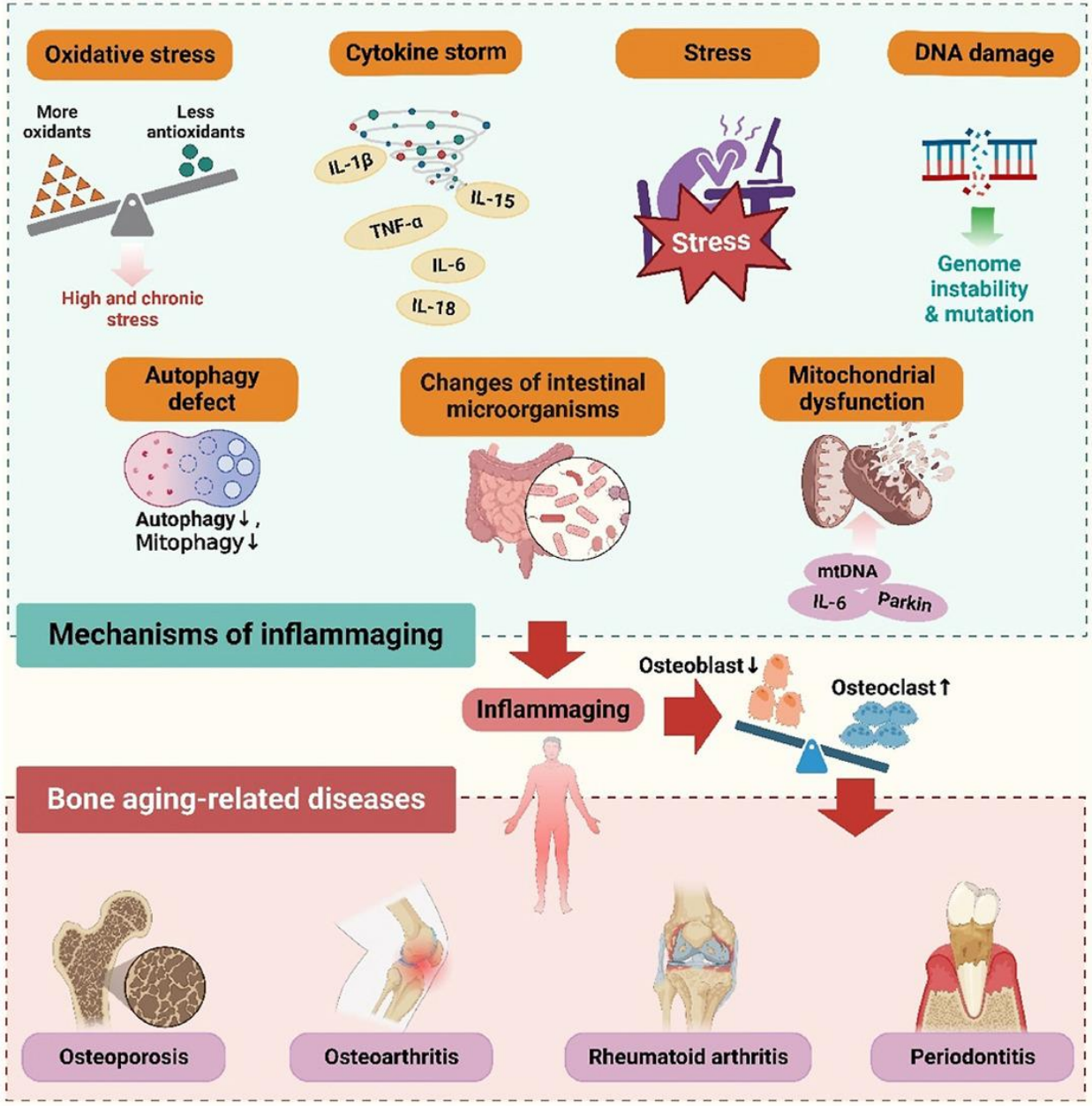
Inflammageing

- Innate immune system → cells of older individuals are in an activated state producing more proinflammatory mediators including free radicals and pro-inflammatory cytokines

- Multimodal interventions aimed at Inflammageing may exist to achieve the healthy longevity
- Nutrition, physical activity, stress management, and social activities →in the future may be reinforced by pharmacological modulations.



Ferrucci L, Fabbri E. Inflammageing: chronic inflammation in ageing, cardiovascular disease, and frailty. Nat Rev Cardiol. 2018 Sep;15(9):505-522. doi: 10.1038/s41569-018-0064-2. PMID: 30065258; PMCID: PMC6146930

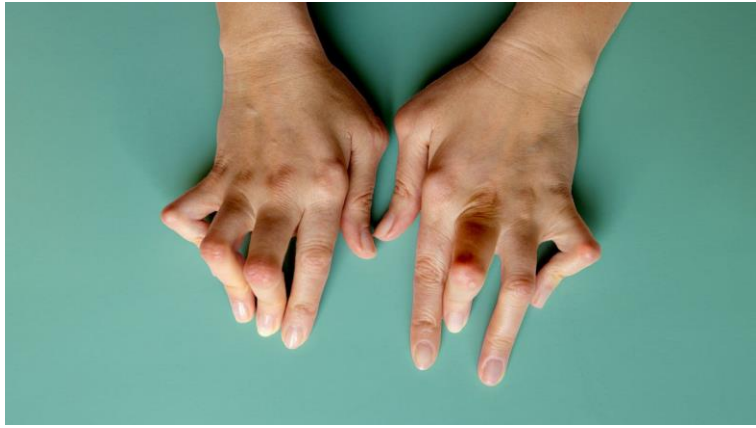


Jiaming Bi, Caimei Zhang, Caihong Lu, Chuzi Mo, Jiawei Zeng, Mingyan Yao, Bo Jia, Zhongjun Liu, Peiyan Yuan, Shuaimei Xu, Age-related bone diseases: Role of inflammaging,Journal of Autoimmunity,Volume 143,2024,103169,ISSN 0896-8411,https://doi.org/10.1016/j.jaut.2024.103169.

Frailty

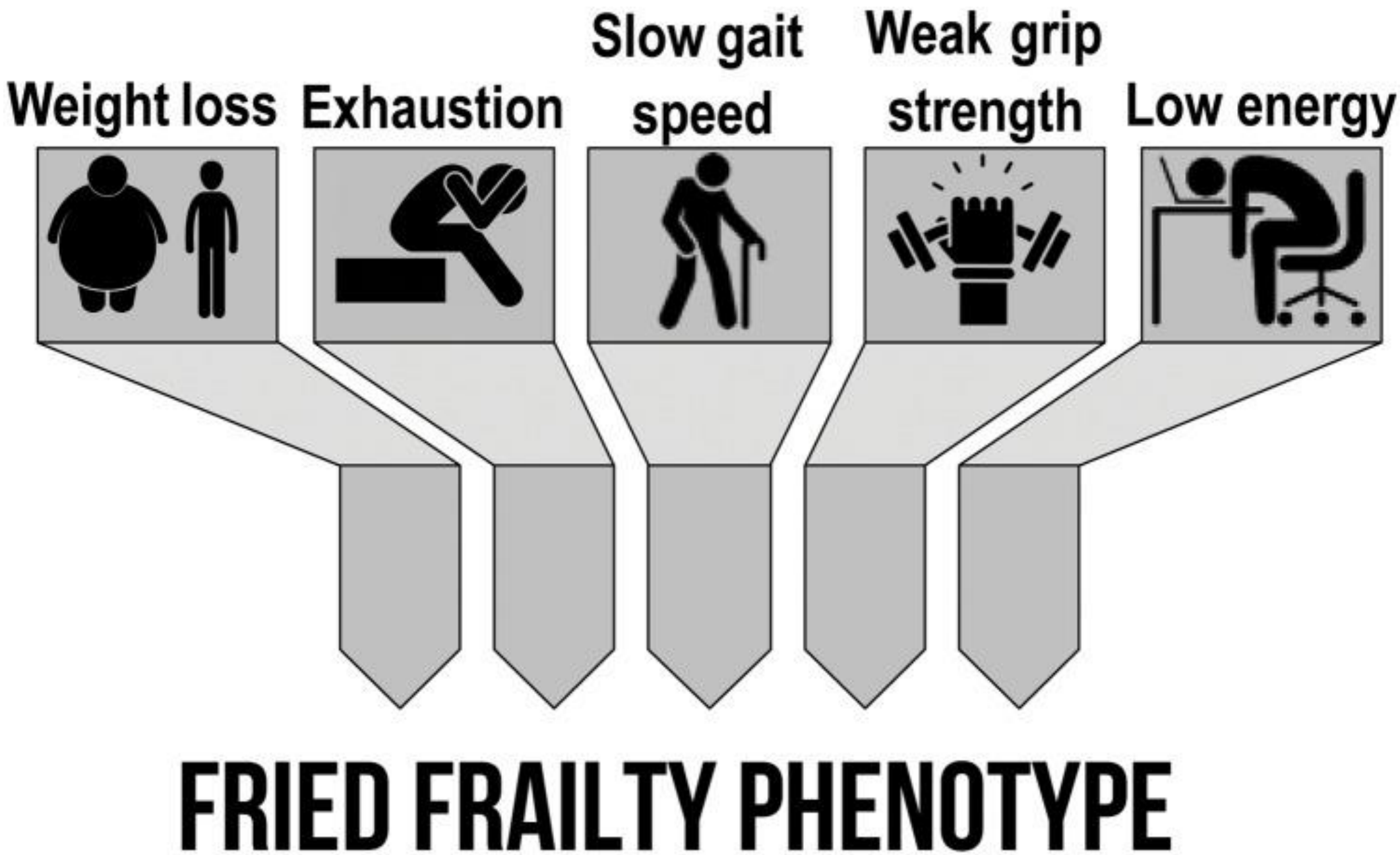
- Identifies a group of older adults that seem poorer and more fragile than their age-matched counterparts
- Despite sharing similar comorbidities, demography, sex, and age
- Inflammageing → Frailty

Frailty..



- Rheumatoid arthritis, spondyloarthritis, systemic lupus erythematosus, systemic sclerosis, and vasculitis are leading causes of frailty in developing countries.
- Inflammageing related frailty + rheumatological ailments related frailty = ??Double blow??

Salaffi F, Di Matteo A, Farah S, Di Carlo M. Inflammaging and Frailty in Immune-Mediated Rheumatic Diseases: How to Address and Score the Issue. Clin Rev Allergy Immunol. 2023 Apr;64(2):206-221. doi: 10.1007/s12016-022-08943-z. Epub 2022 May 21. PMID: 35596881; PMCID: PMC10017626.


Weight loss
Exhaustion
Slow gait speed
Weak grip strength
Low energy
FRIED FRAILTY PHENOTYPE

Musculoskeletal disorders in the elderly

Musculoskeletal disorders in the elderly

Non inflammatory

- Osteoarthritis
- Osteoporosis
- Back pain

Inflammatory

- Rheumatoid Arthritis
- Crystal Arthropathies
- Spondyloarthritis
- Polymyalgia Rheumatica (PMR)
- Inflammatory Forms of Osteoarthritis

Elderly Onset Rheumatoid Arthritis (EORA)

- Lower female predominance (1.5–2:1 vs. 4–4.5:1)
- Onset - more acute
- More constitutional symptoms and disabling early morning stiffness.
- Involvement of large joints especially shoulder joints - prominent feature(Confusion with PMR)

Jain, Vikramraj K; Negi, Vir Singh. Inflammatory Rheumatic Diseases in the Elderly. Indian Journal of Rheumatology 11(4):p 207-215, December 2016. | DOI: 10.4103/0973-3698.192684

EORA- Three patterns of disease onset

- **70%** of cases are similar to classical Rheumatoid Arthritis, with Rheumatoid Factor positivity and erosive joint disease.
- **25%** of patients- proximal joint involvement that needs to be differentiated from Polymyalgia Rheumatica(PMR) (Simultaneous involvement of small joints of hand and presence of anti cyclic citrullinated peptide(Anti CCP) helps to differentiate these patients from PMR).
- **10%** patients - 3rd type - pitting edema of dorsum of hands and feet, acute onset symmetrical synovitis, and negative RF, mimicking remitting seronegative symmetrical synovitis (RS3PE) may also be seen.

Elderly Onset Rheumatoid Arthritis (EORA)

- **Differential Diagnosis**

Osteoarthritis, Calcium pyrophosphate dihydrate crystal deposition disease (CPPD), Gout, PMR and paraneoplastic syndromes

- **Confusion**

RF rises with age

Anti CCP is highly predictive with EORA

- **DAS with caution**

ESR is high due to other reasons such as aging, malignancies etc

Management guidelines of RA need to be modified in the elderly

- Comorbidities and associated polypharmacy, alterations in pharmacokinetics and cognitive impairment
- Patients with comorbidities are usually excluded from the clinical trials!
- Consequently elderly are not adequately represented

Management of RA

- Methotrexate - Bone marrow and central nervous system toxicity is more frequent (especially in patients with hepatic and renal derangement)
- Monitoring of renal function and more frequent ophthalmological examination – since age related macular degeneration
- NSAIDs – GI, Cardiac and Renal
- Glucocorticoids - increased risk of osteoporosis, glucose intolerance, and steroid-induced hypertension
- TNFi – Contra-indicated in congestive heart failure and malignancy

Late Onset Spondyloarthritis

- Late-onset SpA has no standard definition, with most studies using ≥50 years as the age limit

Two patterns of clinical presentation

- *Predominant axial disease*

Relatively more cervical spine involvement and lower HLA-B27 positivity (70% vs. 90% in younger patients)

- *Predominant peripheral disease*

With oligoarthritis of the lower limb and characteristic pitting edema of the dorsum of foot.

- Late-onset undifferentiated SpA is more frequent than late-onset Ankylosing Spondylitis and may have PMR like features at onset

Late Onset Spondyloarthritis(SpA)

- Differential diagnosis

  EORA, RS3PE, PMR and diffuse idiopathic skeletal hyperostosis (DISH).
- Imaging -difficult to interpret in the elderly due to coexistent OA and osteoporosis
- No studies on MRI assessment of sacroiliitis and spine in late-onset/late diagnosed SpA

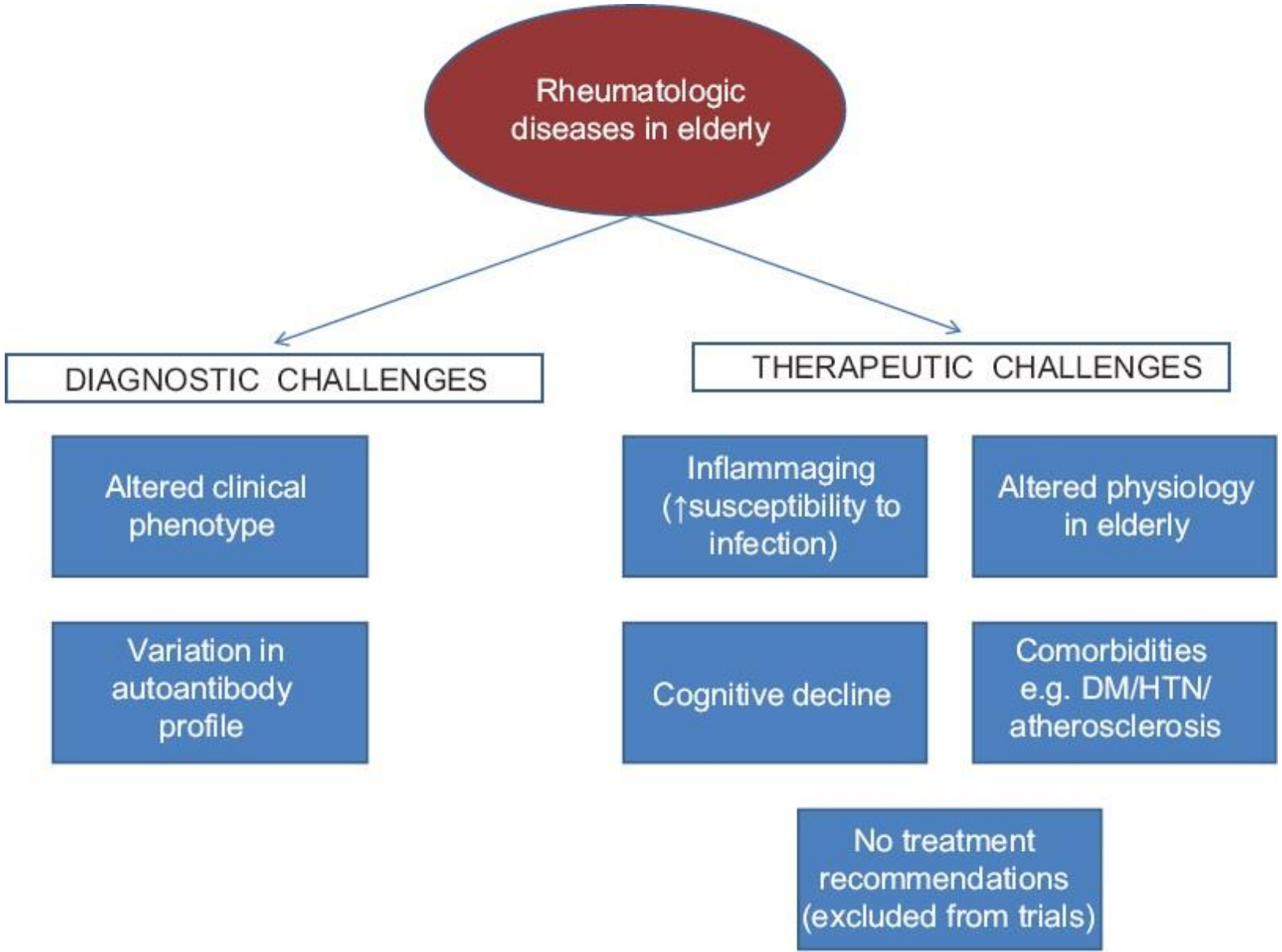
Mx

- NSAIDs - with caution in the elderly- more intensive monitoring of renal function
- Evidence regarding safety and efficacy of TNFi in elderly -lacking

It’s a tough task….

- Clinical and serological phenotype of several autoimmune disorders including SLE, Sjogrens, Systemic Sclerosis are modified with age
- Different age cutoff by various studies - analysis of this subgroup of patients difficult
- Increasing frailty and an aging immune system combined with comorbidities -diagnosis and management of such diseases a challenge

Challenges in management of inflammatory rheumatic diseases in the elderly



Some ongoing problems among older rheumatology patients in Sri Lanka

Necessity of a care pathway for geriatric rheumatology patients

- **65% found waiting times** an issue.
- Maximum time patients could stand in queues **without pain was 16.8 minutes.**
- 66% found it difficult to reach toilets.
- 11% had trouble in change of meal times because of clinic schedules.

Atukorale H, Kandambi M, Yapa S, Weerakoon H, Palliyaguruge K, Chrishanthi M. Necessity of a care pathway for geriatric rheumatology patients; survey at a rheumatology clinic. (2023), Poster Abstract Presentation Abstracts. Int J Rheum Dis, 26: 89-388.

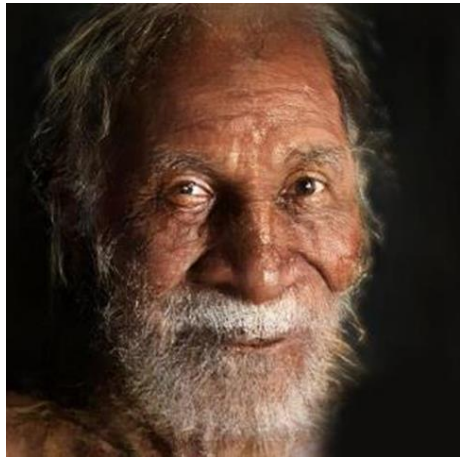
Necessity of a care pathway for geriatric rheumatology patients…

- Ideal doctor consultation time required was **10.6 minutes.**
- 82% needed someone to talk to about symptoms at clinics.
- Drug side effects, meal plans, weight management and exercise were preferred topics for discussion other than for disease related advice.
- 89% agreed on the necessity for a separate geriatric rheumatology service.

Atukorale H, Kandambi M, Yapa S, Weerakoon H, Palliyaguruge K, Chrishanthi M. Necessity of a care pathway for geriatric rheumatology patients; survey at a rheumatology clinic. (2023), Poster Abstract Presentation Abstracts. Int J Rheum Dis, 26: 89-388.

Negative Impact of an Economic Crisis on Older Rheumatology Patients in Sri Lanka

- Mean monthly income through employment and other means was Sri Lankan Rupees 12548.
- 73% stated that purchasing drugs is currently a problem.
- 52% said reaching laboratories was a problem.
- Only 36% had access to good quality meals.



Atukorale H, Udara H, Atukorale D. Evaluating financial burden due to rheumatological disease and its treatment; a Sri Lankan experience. (2023), Poster Abstract Presentation Abstracts. Int J Rheum Dis, 26: 89-388. https://doi.org/10.1111/1756-185X.14505

Negative Impact of an Economic Crisis on Older Rheumatology Patients in Sri Lanka…

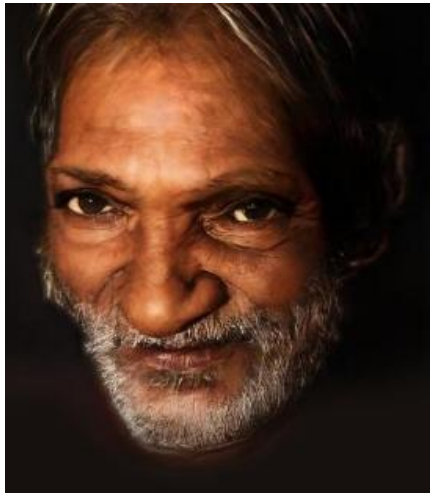
- Only 29 % were able to fund their own meals
- 6% encountered domestic conflicts
- **44 % mentioned that symptoms worsened since the onset of economic crises**

Atukorale H, Udara H, Atukorale D. Evaluating financial burden due to rheumatological disease and its treatment; a Sri Lankan experience. (2023), Poster Abstract Presentation Abstracts. Int J Rheum Dis, 26: 89-388. https://doi.org/10.1111/1756-185X.14505

Polypharmacy in geriatric rheumatology patients; an institutional audit in Sri Lanka

Patients were on a mean number of

- **6 types** of medications for rheumatological diseases
- **2 types** of medications for other co-morbidities
- on **8 types** medications for all their illnesses
- 27.9% were on concurrent **complementary medications**.

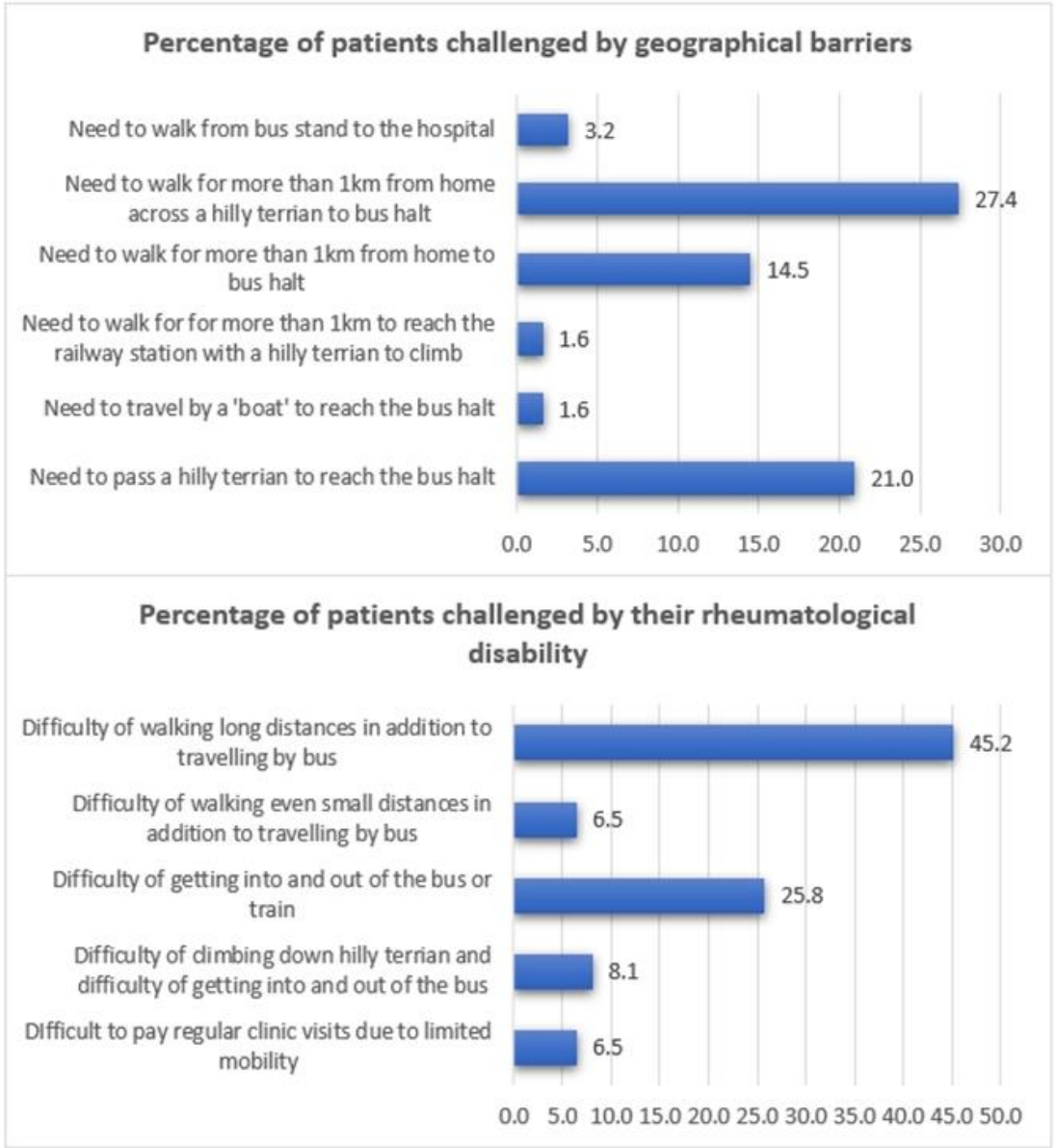


Atukorale H, Udara H, Atukorale D. Polypharmacy in geriatric rheumatology patients; an institutional audit in Sri Lanka. (2023), Poster Abstract Presentation Abstracts. Int J Rheum Dis, 26: 89-388. https://doi.org/10.1111/1756-185X.14505

Table – Findings of open-ended questions on polypharmacy related problems
Medication administration
Majority of patients self-administered their own medication without supervision (97.1%). Therefore, lacked insight on correct dosage, proper dosing intervals and double-dosing. Some skipped medication when they could not arrange meals, as correct dosing to them was related to meal times.
Dosing intervals
In instances where patients forgot to take weekly drugs like Methotrexate, they waited a week to take the next tablet. Weekly medication was commonly forgotten because it was out of schedule.
Medication Mix-up
DMARDs were taken as pain-killers, during disease flares. Many did not know the difference between DMARDs and pain-killers.
Medication Toxicity
Nephrotoxicity was a main concern among patients on multiple medications.

Atukorale H, Udara H, Atukorale D. Polypharmacy in geriatric rheumatology patients; an institutional audit in Sri Lanka. (2023), Poster Abstract Presentation Abstracts. Int J Rheum Dis, 26: 89-388. https://doi.org/10.1111/1756-185X.14505

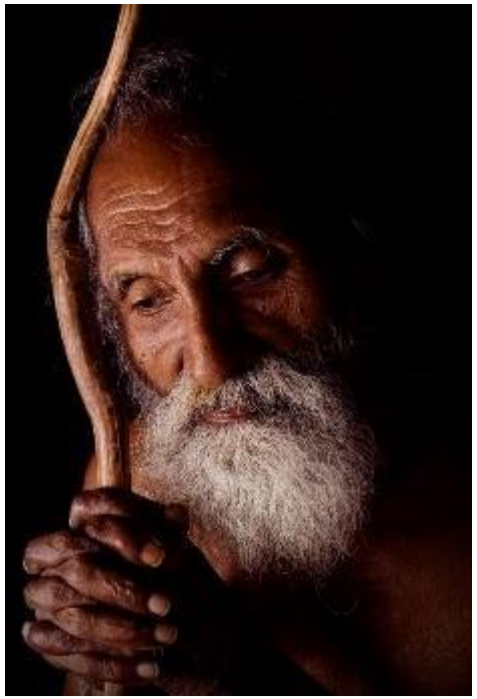
Survey on Geographic Barriers and Health Seeking Behavior Among Rheumatology Patients in Sri Lanka



Three rheumatology patients….

10 years

26 years

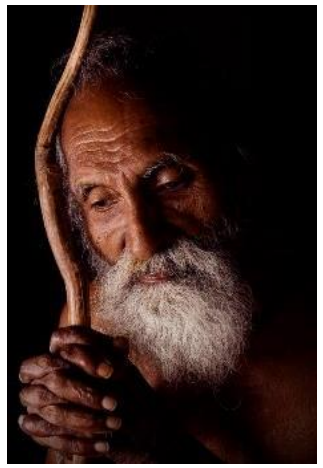


72 years

Paediatric Rheumatology

- For paediatrics we have a sub specialty
- Even transitional rheumatology clinics – adolescents

Justified?



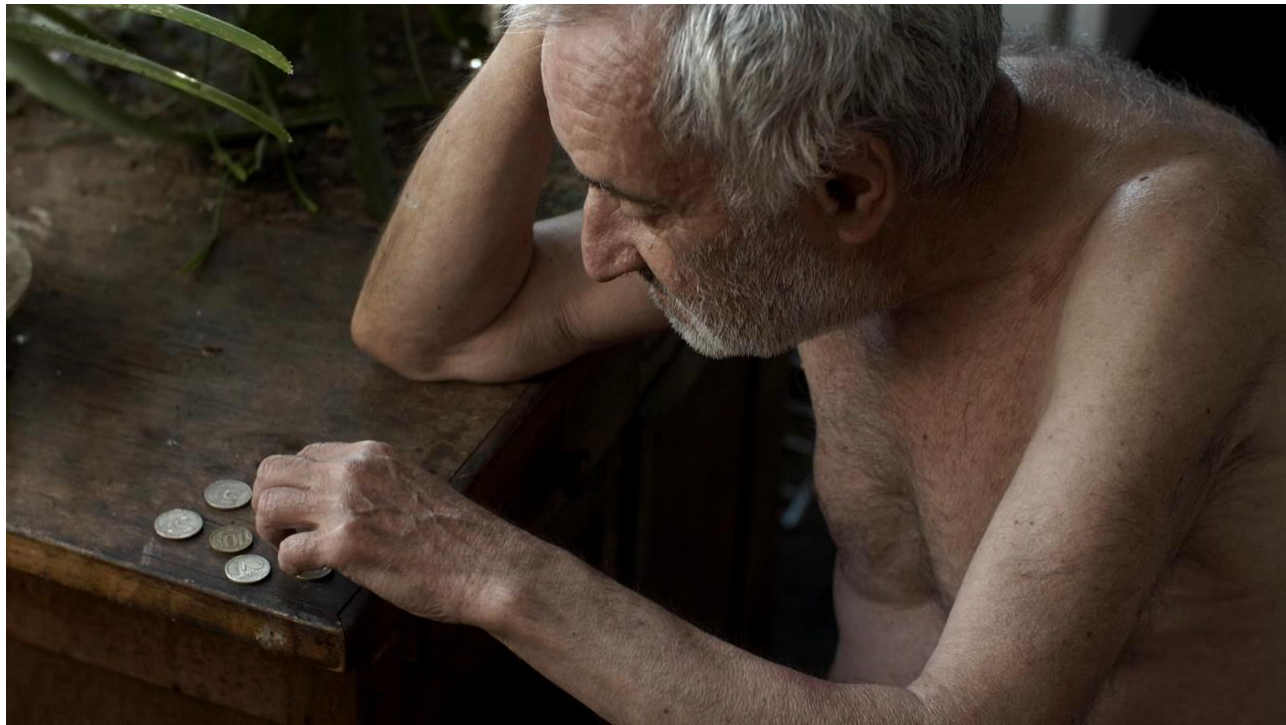
Same management approach?

Lets analyse…using a different approach

- What does a **geriatric rheumatology patient** actually require?

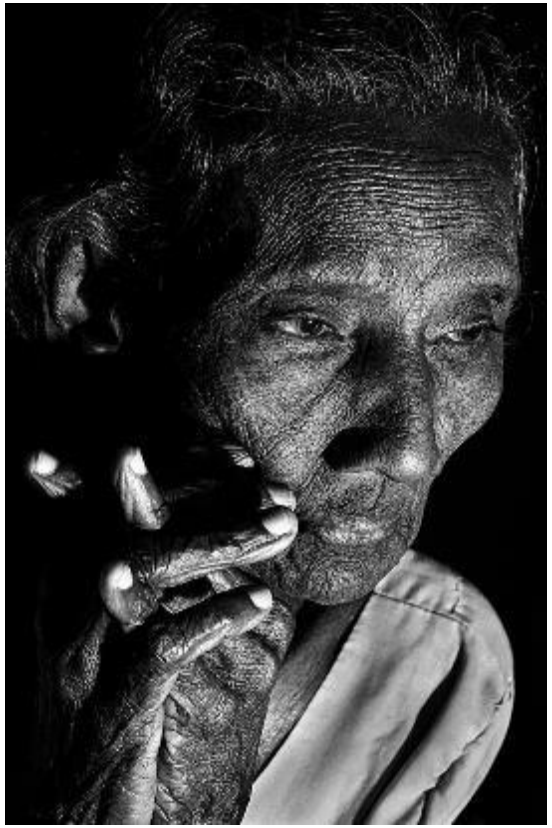
- Pain free
- Comfortable
- **Functionally independent** life

- Question ourselves … do we cater to above requirements?



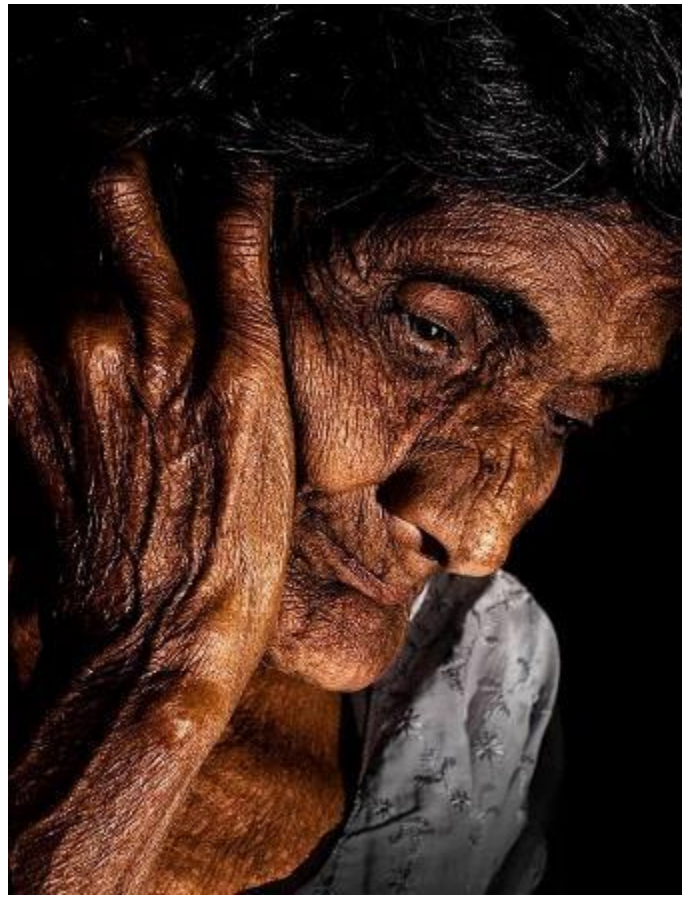
An everyday patient..

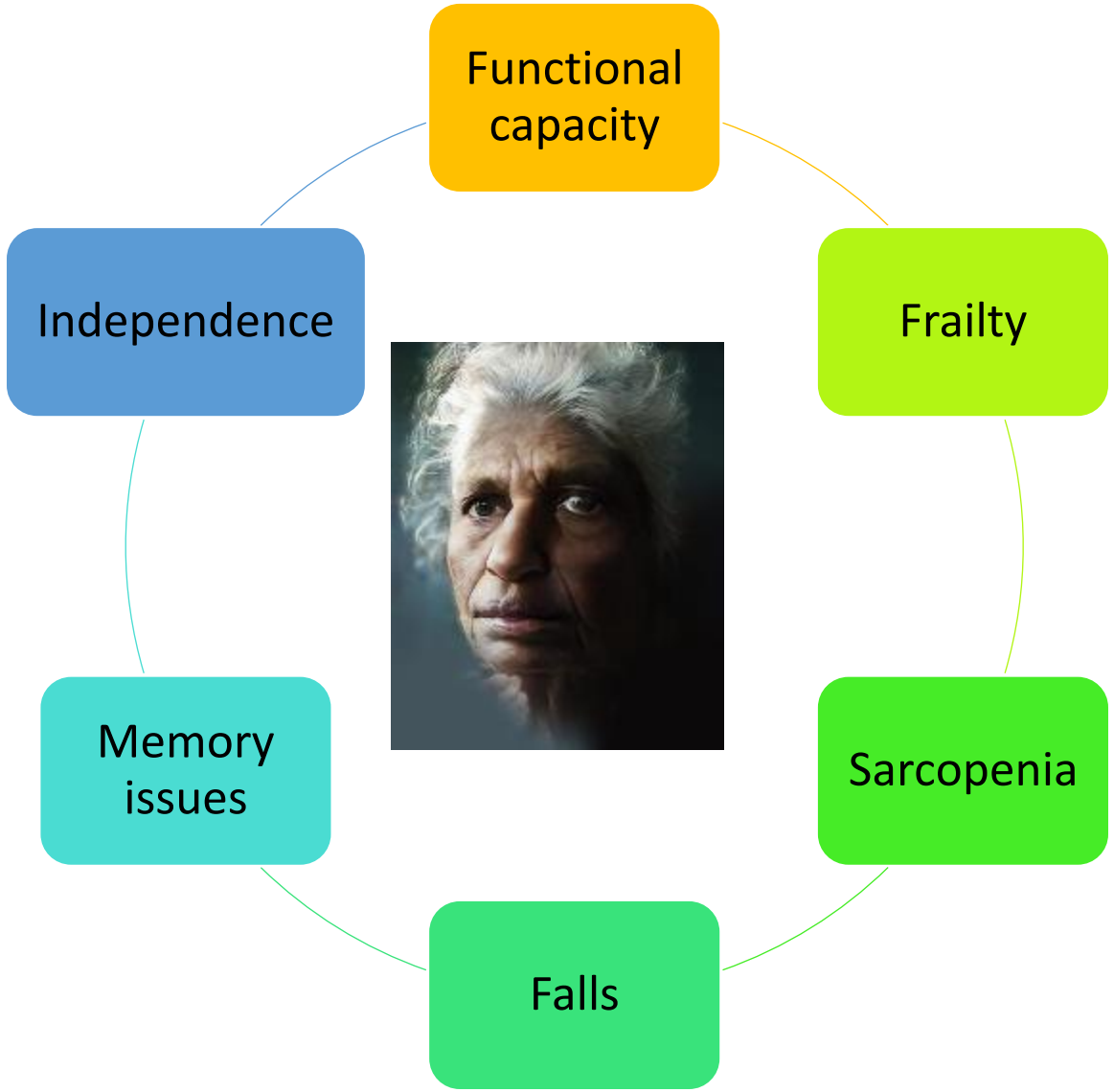
- 70 year old patient … frequently misses her scheduled clinic visits….flare of inflammatory arthritis.
- Awaits another consultation…eye clinic…macular degeneration.
- Her knees are painful…struggles to mobilise.
- Transfers from bed to standing, from chair to standing … difficult ….weakness.
- Had a fall last month …. knees gave way when attempting to stand.
- Bathing and dressing up is difficult.
- Has lost her previous prescription.

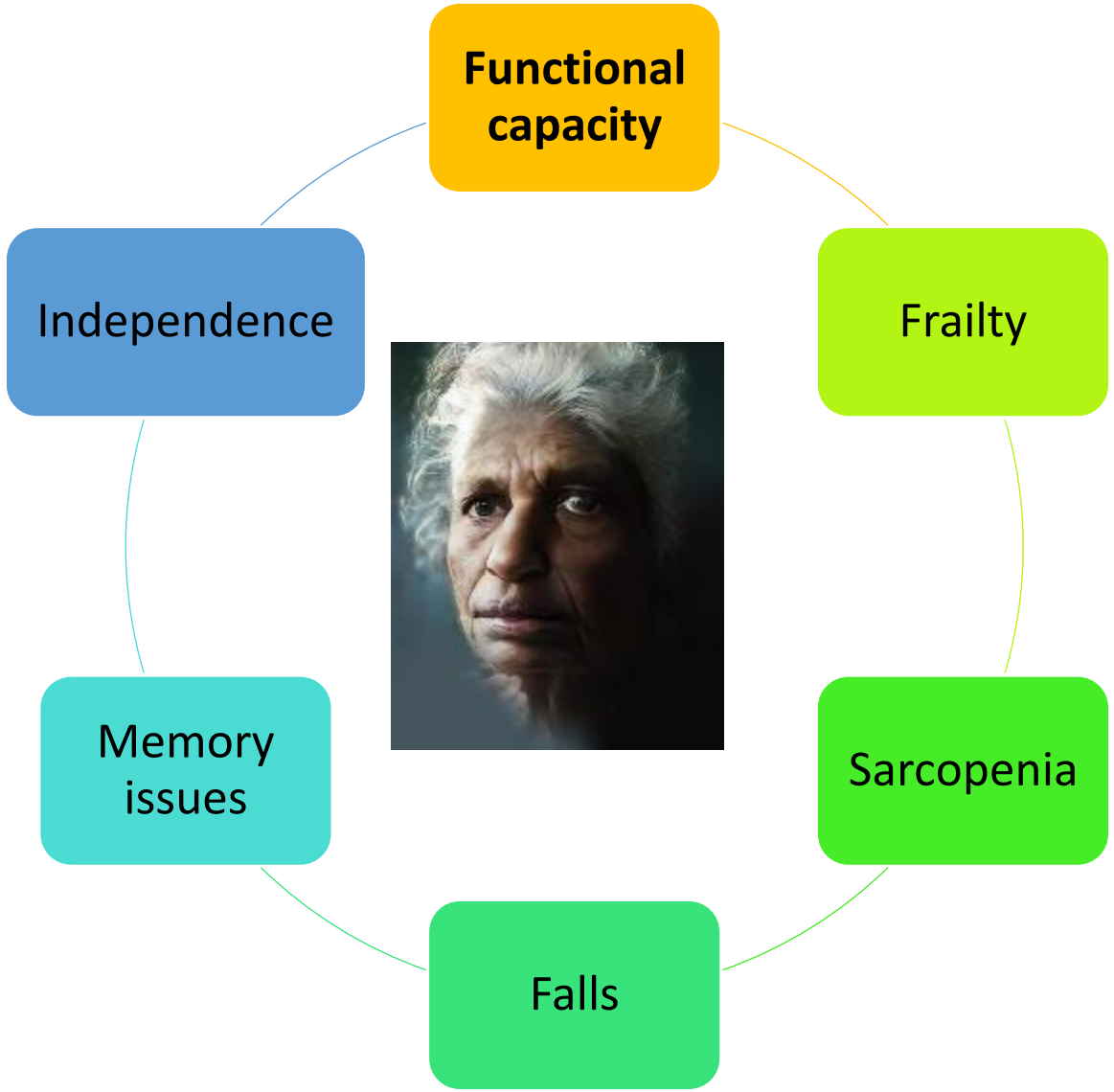


Does she only deserve?

- An ordinary prescription?
- A set of instructions on adverse effects?
- An appointment with the therapist?
- Or something beyond the traditional norms of rheumatology?




Functional capacity
Frailty
Sarcopenia
Falls
Memory issues
Independence

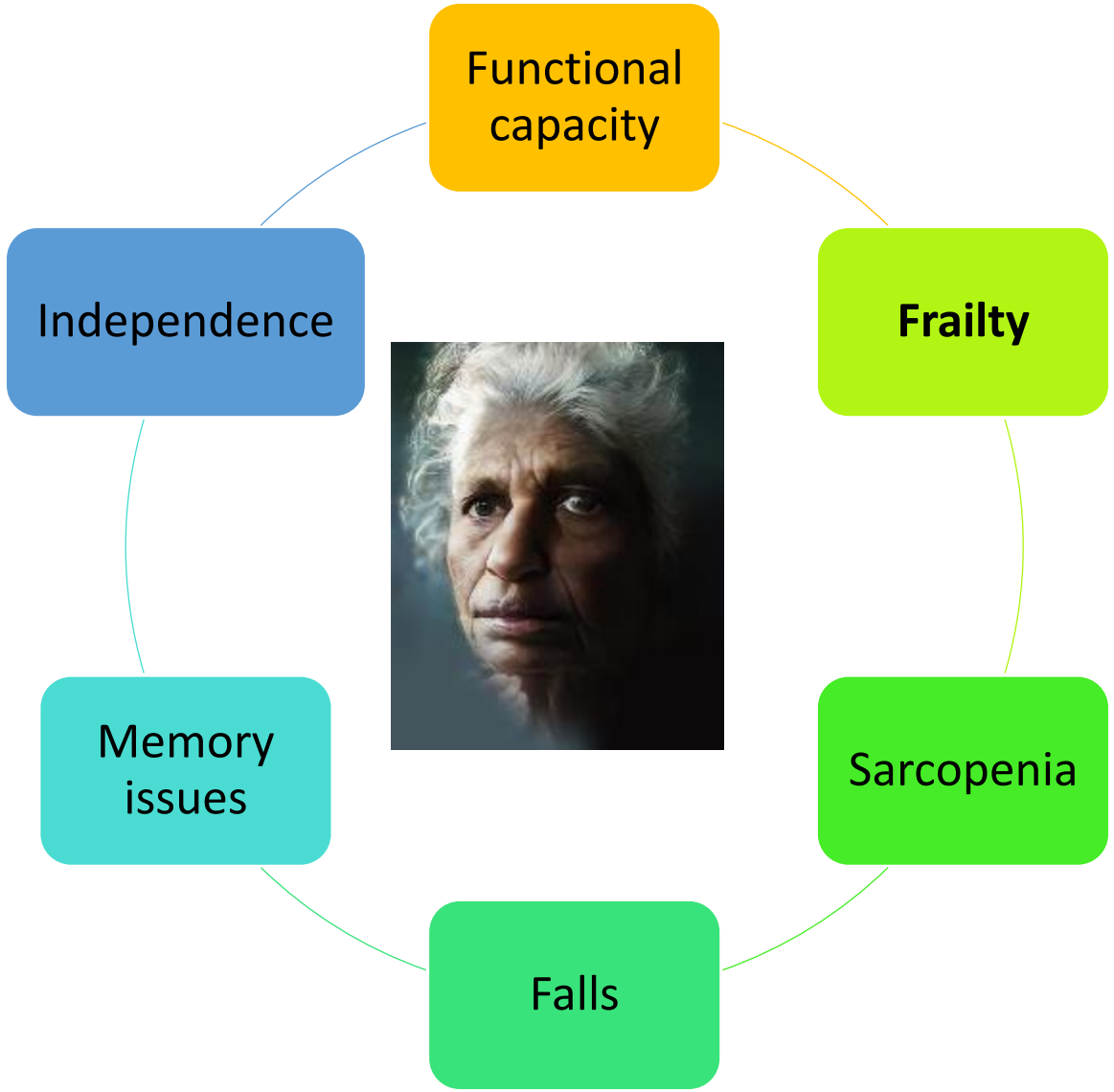

Functional capacity
Frailty
Sarcopenia
Falls
Memory issues
Independence

Senior Fitness Test

Table 1. Brief Descriptions of Senior Fitness Test Items

Assessment category	Test item	Test description
Lower body strength	30-s chair stand	Number of full stands in 30 s with arms folded across chest
Upper body strength	30-s arm curl	Number of bicep curls in 30 s holding hand weight (women 5 lb; men 8 lb)
Aerobic endurance	6-min walk or	Number of yards walked in 6 min around 50-yard course
	2-min step test (alternate aerobic test)	Number of full steps completed in 2 min, raising each knee to point midway between patella and iliac crest (score is number of times right knee reaches target)
Lower body flexibility	Chair sit-and-reach	From sitting position at front of chair, with leg extended and hands reaching toward toes, number of inches (+or −) from extended fingers to tip of toe
Upper body flexibility	Back scratch	With one hand reaching over shoulder and one up middle of back, number of inches between extended middle fingers (+ or −)
Agility/dynamic balance	8-foot up-and-go	Number of seconds required to get up from seated position, walk 8 foot, turn, and return to seated position on chair

Relevant to rheumatologists than for other specialists


Functional capacity
Frailty
Sarcopenia
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Independence

Frailty

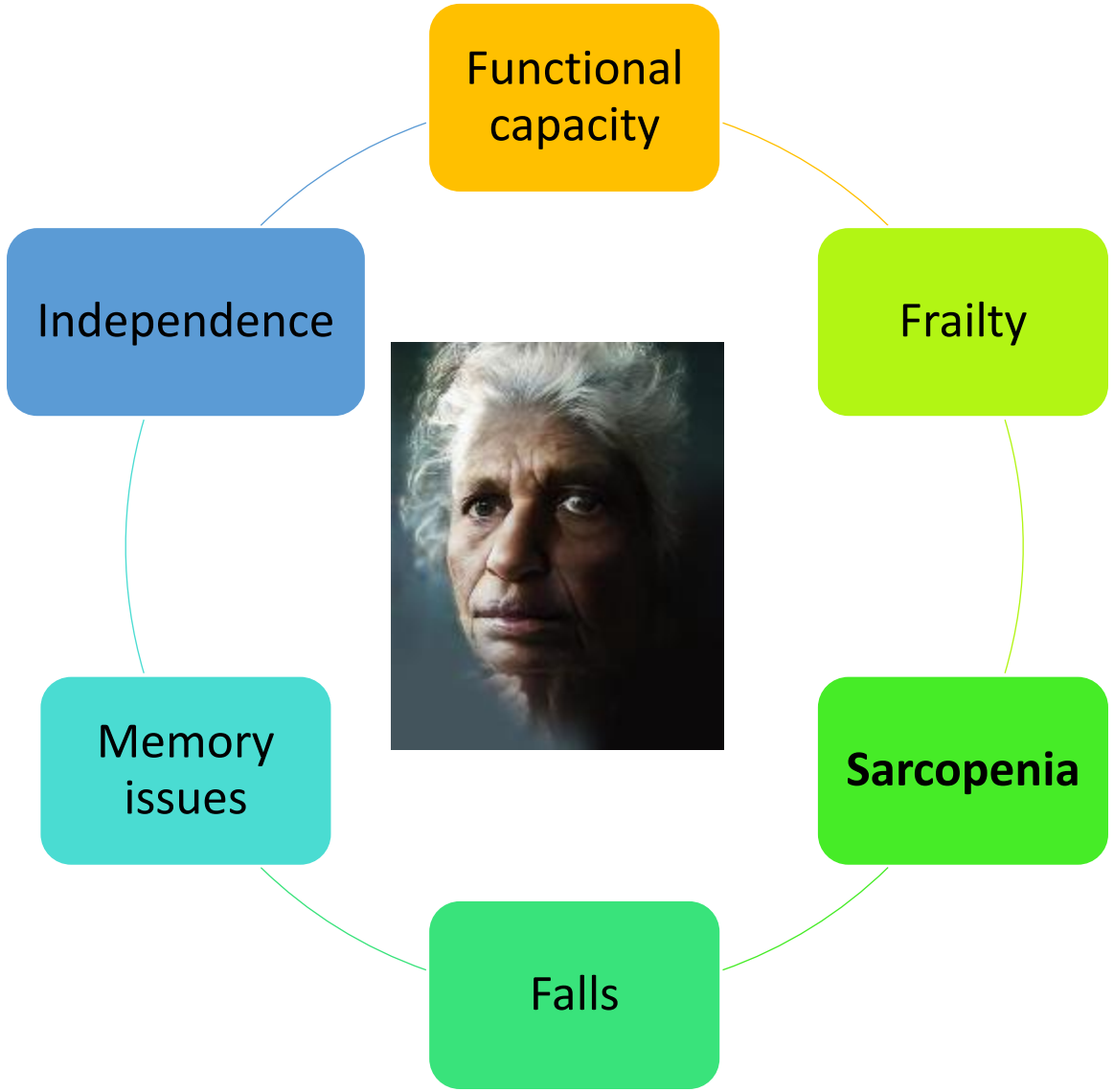
Edmonton Frail Scale

Frailty domain	Item	0 point	1 point	2 points
Cognition	Please imagine that this pre-drawn circle is a clock. I would like you to place the numbers in the correct positions then place the hands to indicate a time of 'ten after eleven'	No errors	Minor spacing errors	Other errors
General health status	In the past year, how many times have you been admitted to a hospital?	0	1–2	≥2
	In general, how would you describe your health?	'Excellent', 'Very good', 'Good'	'Fair'	'Poor'
Functional independence	With how many of the following activities do you require help? (meal preparation, shopping, transportation, telephone, housekeeping, laundry, managing money, taking medications)	0–1	2–4	5–8
Social support	When you need help, can you count on someone who is willing and able to meet your needs?	Always	Sometimes	Never
Medication use	Do you use five or more different prescription medications on a regular basis?	No	Yes	
	At times, do you forget to take your prescription medications?	No	Yes	
Nutrition	Have you recently lost weight such that your clothing has become looser?	No	Yes	
Mood	Do you often feel sad or depressed?	No	Yes	
Continence	Do you have a problem with losing control of urine when you don't want to?	No	Yes	
Functional performance	I would like you to sit in this chair with your back and arms resting. Then, when I say 'GO', please stand up and walk at a safe and comfortable pace to the mark on the floor (approximately 3 m away), return to the chair and sit down'	0–10 s	11–20 s	One of : >20 s , or patient unwilling , or requires assistance
Totals	Final score is the sum of column totals			

Scoring :
0 - 5 = Not Frail
6 - 7 = Vulnerable
8 - 9 = Mild Frailty
10-11 = Moderate Frailty
12-17 = Severe Frailty

TOTAL **/17**

Administered by : _____

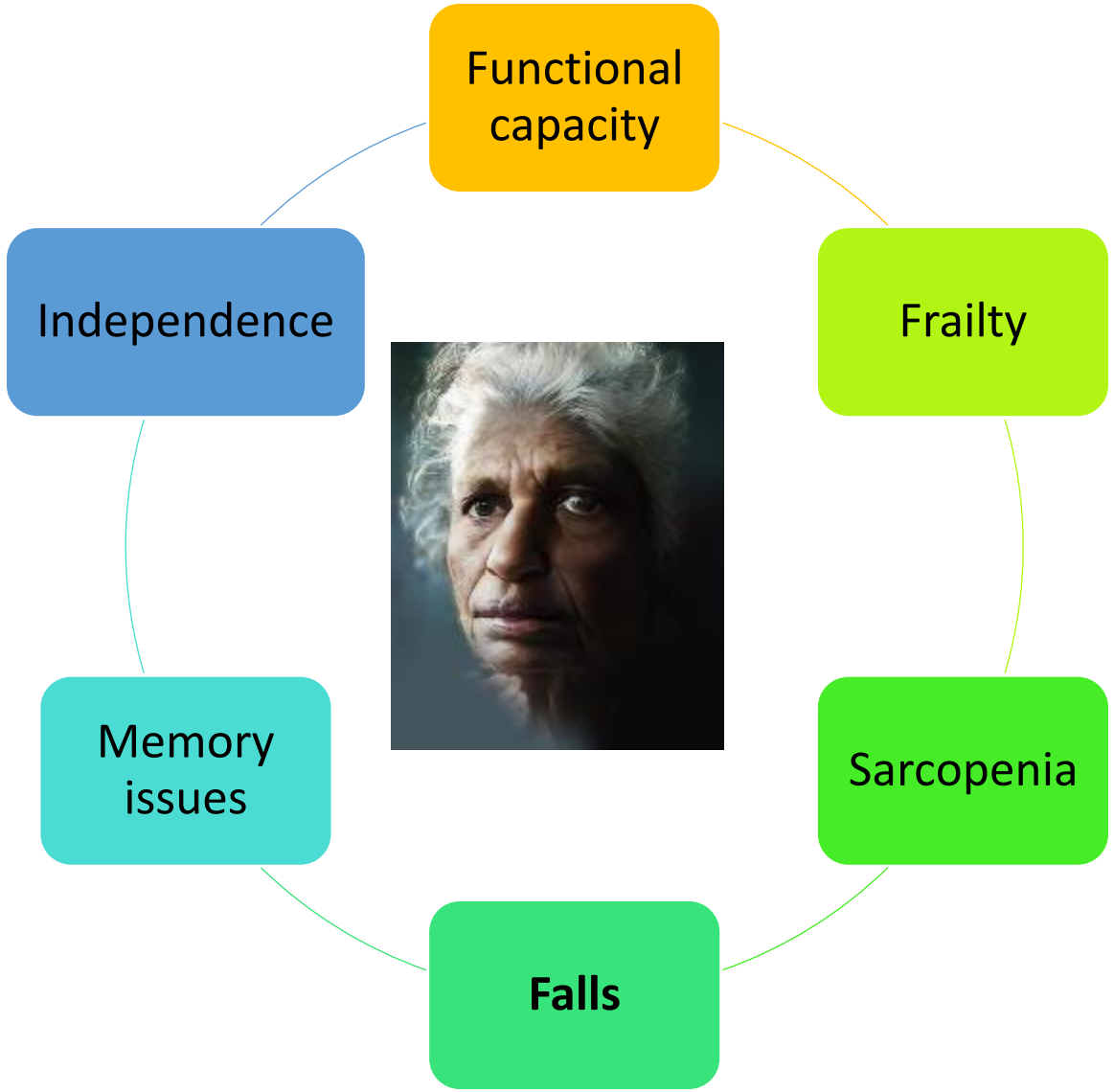

Functional capacity
Frailty
Sarcopenia
Falls
Memory issues
Independence

Sarcopenia

- Various clinic based tests are available

TABLE 4. MUSCLE STRENGTH AND PHYSICAL PERFORMANCE ASSESSMENT

Test	Method	Cutoffs
Grip strength	- -Dynamometer in dominant hand with base resting in the palm - -Maximal isometric effort for 5 seconds	Men: <27 kg Women: <16 kg
Chair stand	Time needed to rise from seated five times	>15 seconds for five rises
TGUG	Time needed to rise from seated and walk 3 m away and back with return to seated	≥20 seconds
SPPB	- Time to walk 4 m - Feet in a parallel paired position for 10 seconds - Feet in a parallel nonpaired position for 10 seconds - Chair stand as above - Each component scored on a scale of 0-4 with 0 equating to test failure and 4 equating to full achievement	≤8 points
SCPT	- Timed climb of a flight of stairs (4-11 stairs) - Calculated in watts using equation	Varies with age


Functional capacity
Frailty
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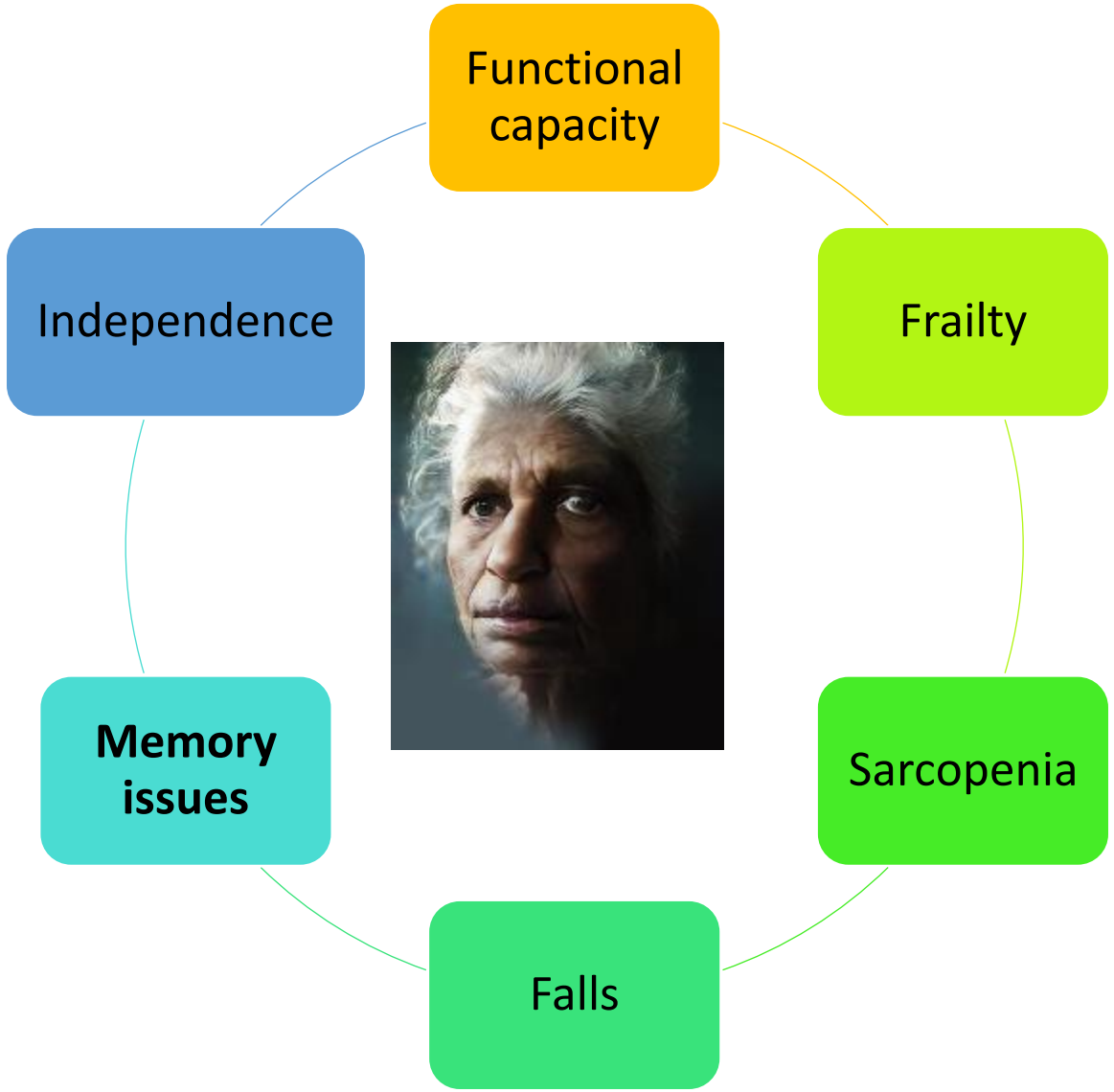
Independence

Falls

Berg Balance Scale

Category	Component	Score
Sitting balance	Sitting unsupported	0-4
Standing balance	Standing unsupported	0-4
	Standing with eyes closed	0-4
	Standing with feet together	0-4
	Standing on one foot	0-4
	Turning to look behind	0-4
	Retrieving object from floor	0-4
	Tandem standing	0-4
	Reaching forward with an outstretched arm	0-4
Dynamic balance	Sitting to standing	0-4
	Standing to sitting	0-4
	Transfer	0-4
	Turning 360 degrees	0-4
	Stool stepping	0-4
Total		0-56


Functional capacity
Frailty
Sarcopenia
Falls
Memory issues
Independence

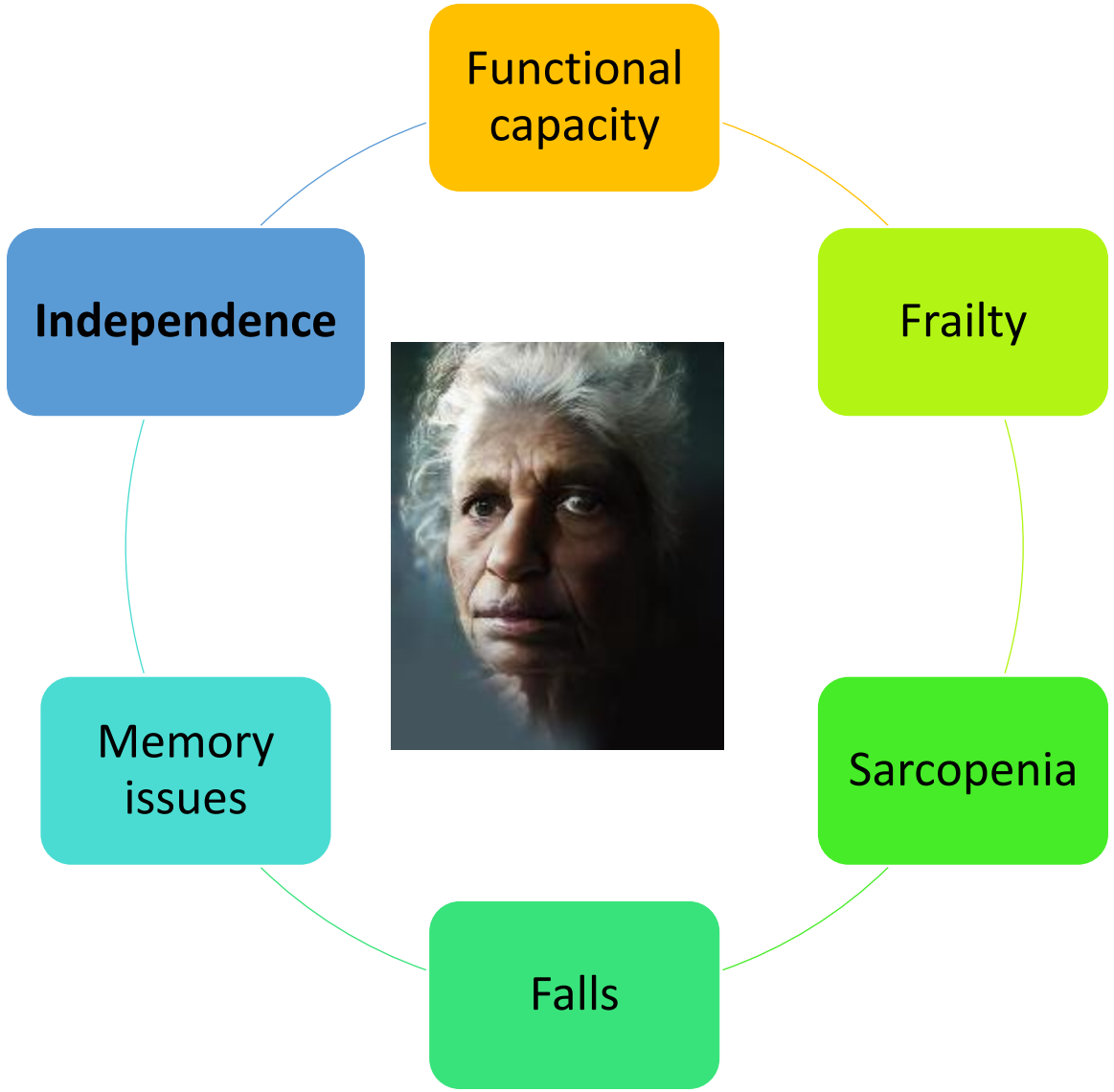
Memory

Mini-Mental State Examination (MMSE)

Patient's Name:_____ Date:_____

Instructions: Ask the questions in the order listed.
Score one point for each correct response within each question or activity.

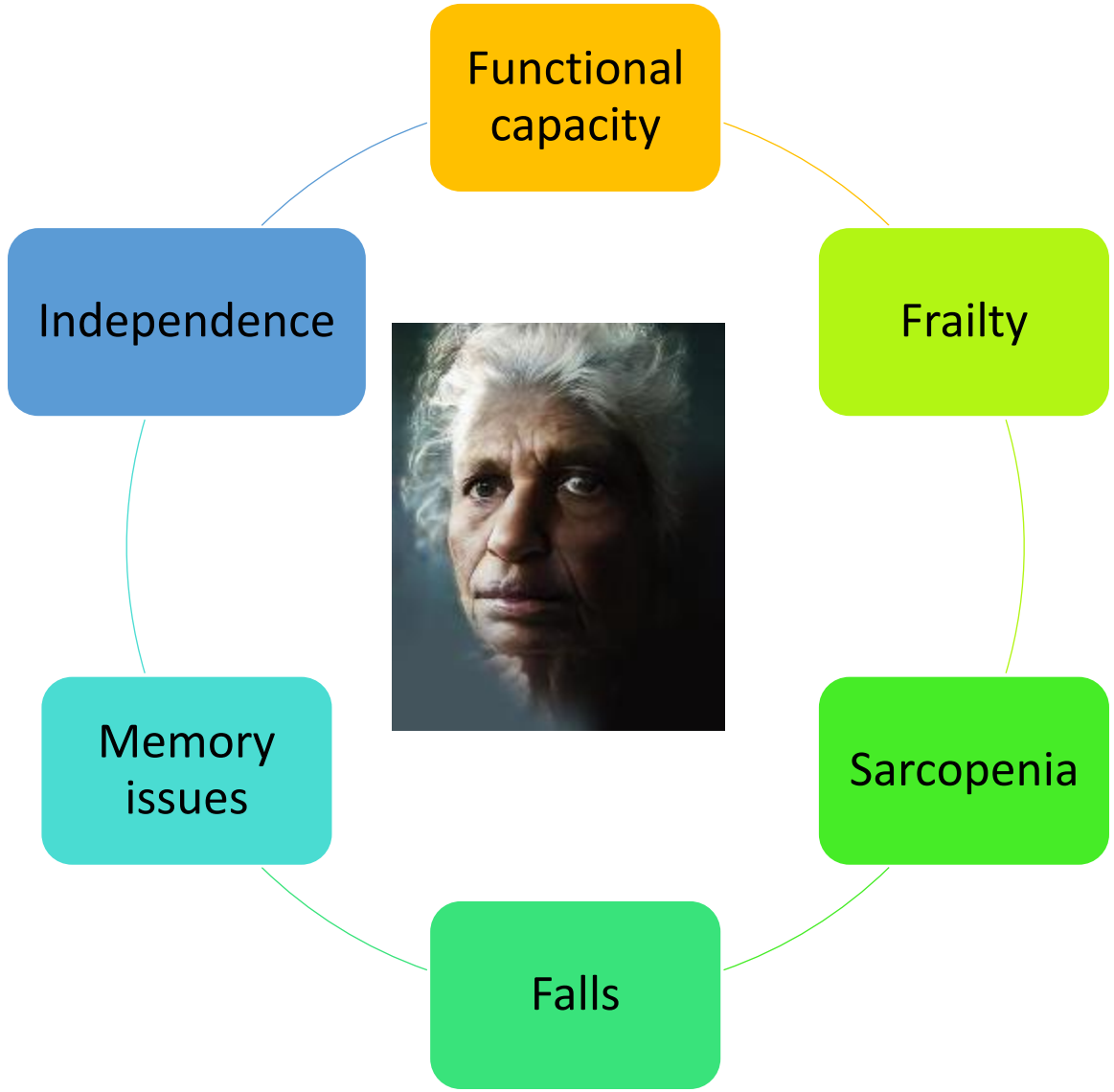
Maximum Score	Patient's Score	Questions
5		"What is the year? Season? Date? Day of the week? Month?"
5		"Where are we now: State? County? Town/city? Hospital? Floor?"
3		The examiner names three unrelated objects clearly and slowly, then asks the patient to name all three of them. The patient's response is used for scoring. The examiner repeats them until patient learns all of them, if possible. Number of trials:_____
5		"I would like you to count backward from 100 by sevens." (93, 86, 79,72, 65, …) Stop after five answers. Alternative: "Spell WORLD backwards." (D-L-R-O-W)
3		"Earlier I told you the names of three things. Can you tell me what those were?"
2		Show the patient two simple objects, such as a wristwatch and a pencil, and ask the patient to name them.
1		"Repeat the phrase: 'No ifs, ands, or buts.'"
3		"Take the paper in your right hand, fold it in half, and put it on the floor." (The examiner gives the patient a piece of blank paper.)
1		"Please read this and do what it says." (Written instruction is "Close your eyes.")
1		"Make up and write a sentence about anything." (This sentence must contain a noun and a verb.)
1		"Please copy this picture." (The examiner gives the patient a blank piece of paper and asks him/her to draw the symbol below. All 10 angles must be present and two must intersect.) 
30		**TOTAL**


Functional capacity
Frailty
Sarcopenia
Falls
Memory issues
Independence

Independence

Katz index of independence in activities of daily living

Katz Index of Independence in Activities of Daily Living		
Activities Points (1 or 0)	**Independence** (1 Point) **NO** supervision, direction or personal assistance.	**Dependence** (0 Points) **WITH** supervision, direction, personal assistance or total care.
BATHING Points: _____	**(1 POINT)** Bathes self completely or needs help in bathing only a single part of the body such as the back, genital area or disabled extremity.	**(0 POINTS)** Need help with bathing more than one part of the body, getting in or out of the tub or shower. Requires total bathing
DRESSING Points: _____	**(1 POINT)** Get clothes from closets and drawers and puts on clothes and outer garments complete with fasteners. May have help tying shoes.	**(0 POINTS)** Needs help with dressing self or needs to be completely dressed.
TOILETING Points: _____	**(1 POINT)** Goes to toilet, gets on and off, arranges clothes, cleans genital area without help.	**(0 POINTS)** Needs help transferring to the toilet, cleaning self or uses bedpan or commode.
TRANSFERRING Points: _____	**(1 POINT)** Moves in and out of bed or chair unassisted. Mechanical transfer aids are acceptable	**(0 POINTS)** Needs help in moving from bed to chair or requires a complete transfer.
CONTINENCE Points: _____	**(1 POINT)** Exercises complete self control over urination and defecation.	**(0 POINTS)** Is partially or totally incontinent of bowel or bladder
FEEDING Points: _____	**(1 POINT)** Gets food from plate into mouth without help. Preparation of food may be done by another person.	**(0 POINTS)** Needs partial or total help with feeding or requires parenteral feeding.
TOTAL POINTS: _____	**SCORING:** 6 = High (*patient independent*)	0 = Low (*patient very dependent*



Advantages

- Cost effective tools
- Enhances doctor – patient bond
- Saves money – prevents falls etc..

Disadvantages

- Time consuming

You might have noticed that…

- Some of these assessments focus on fine motor skills and locomotive skills

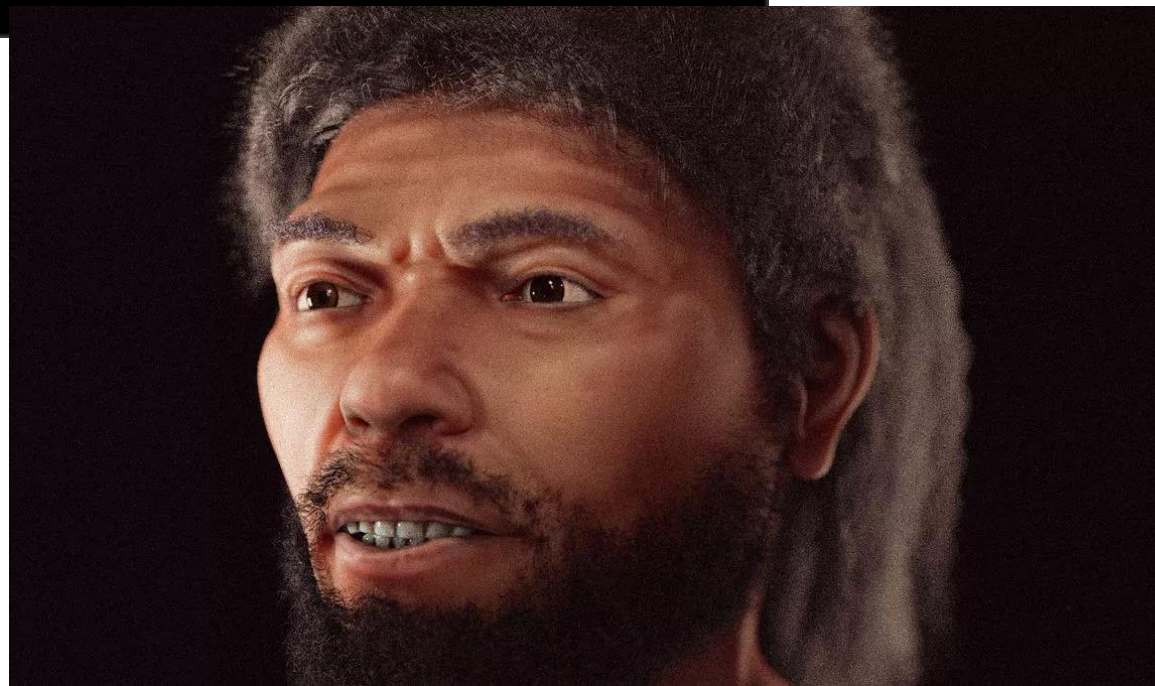
Inability to do finer tasks / certain activities of daily living
Inability to move from one place to another

- Disabilities that hinder these actions lead to depression

- Why? An answer exists in human evolution

Lee J, Lee B, Park Y, Kim Y. Effects of combined fine motor skill and cognitive therapy to cognition, degree of dementia, depression, and activities of daily living in the elderly with Alzheimer's disease. J Phys Ther Sci. 2015 Oct;27(10):3151-4. doi: 10.1589/jpts.27.3151. Epub 2015 Oct 30. PMID: 26644663; PMCID: PMC4668154.

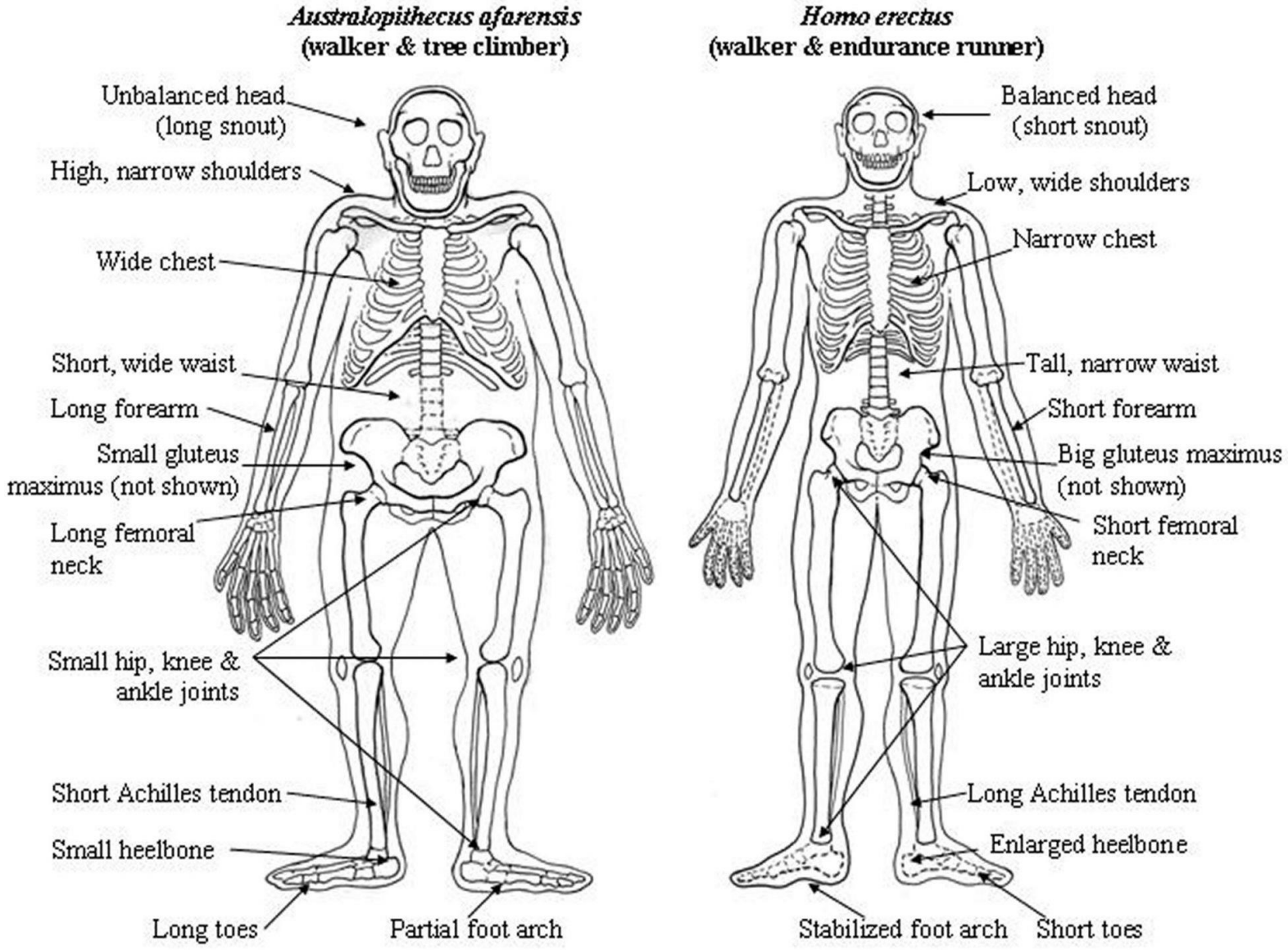
Acheulean hand axes



Fine motor tasks

Locomotion

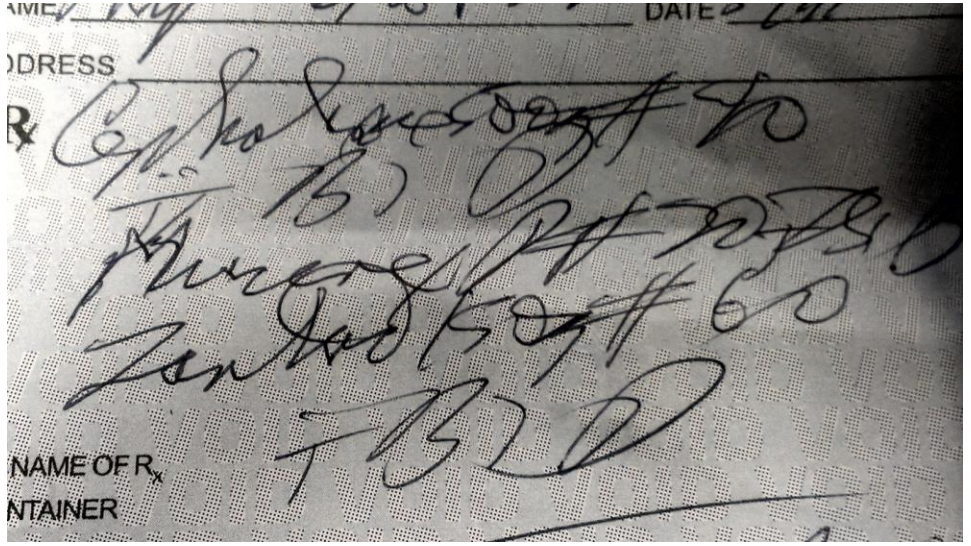
- **Running** -shaped human evolution.
- **Running** is one of the most transforming events in human history.
- Emergence of humans is tied to the evolution of **running**.
- If natural selection had not favored **running**, “we would still look a lot like apes”



Bramble, D., Lieberman, D. Endurance running and the evolution of *Homo*. *Nature* **432**, 345–352 (2004).

Small but significant – Should a prescription differ?

- Font size….clarity
- Do you assess the memory loss before prescribing / providing them with instructions?
- Dosage regimen…simplify? (Ability to comprehend)



What is collaborative care?

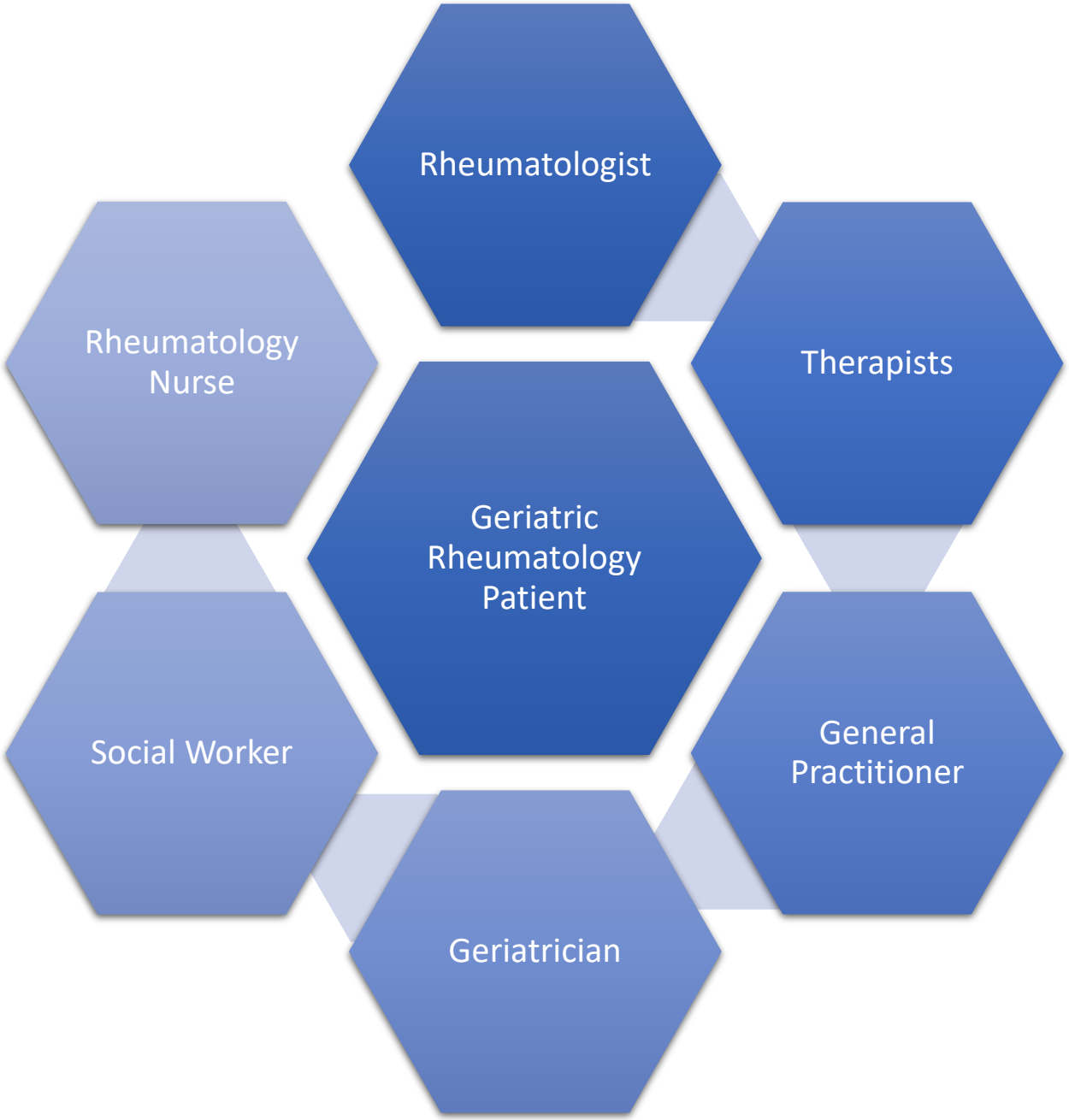
- Systematic way of managing care and treatment for people with chronic conditions
- A doctor or a nurse responsible for the coordination of different components of care
- A structured care management plan, shared with the patient
- Systematic patient management done based on protocols and the **tracking of outcomes**
- Delivery of care by a **multidisciplinary team** which includes a specialist
- Collaboration between primary and secondary care

Department of Rheumatology of the Sint Maartenskliniek in Nijmegen, The Netherlands

- Introduced a Geriatric Rheumatology Outpatient Service
- Problem-oriented approach tailored to the individual's specific needs
- Rheumatologist would focus on the rheumatological issues
- Nurse practitioner would evaluate the patient's cognitive functioning, functional activities of daily living, and the social environment of the patient's residence

Department of Rheumatology of the Sint Maartenskliniek in Nijmegen, The Netherlands…..

- Taking age-related psychosocial and cultural issues into account
- Nurse practitioner can counsel and educate the elderly patient about home adaptations, aiding devices for activities of daily living etc
- Multidisciplinary treatment may be given in the hospital
- Further treatment may be given in primary care(GP) or community-based complementary care


Rheumatologist
Rheumatology Nurse
Therapists
Geriatric Rheumatology Patient
Social Worker
General Practitioner
Geriatrician

Quote : John M. Davis vice chair and practice chair in the Division of Rheumatology at the Mayo Clinic

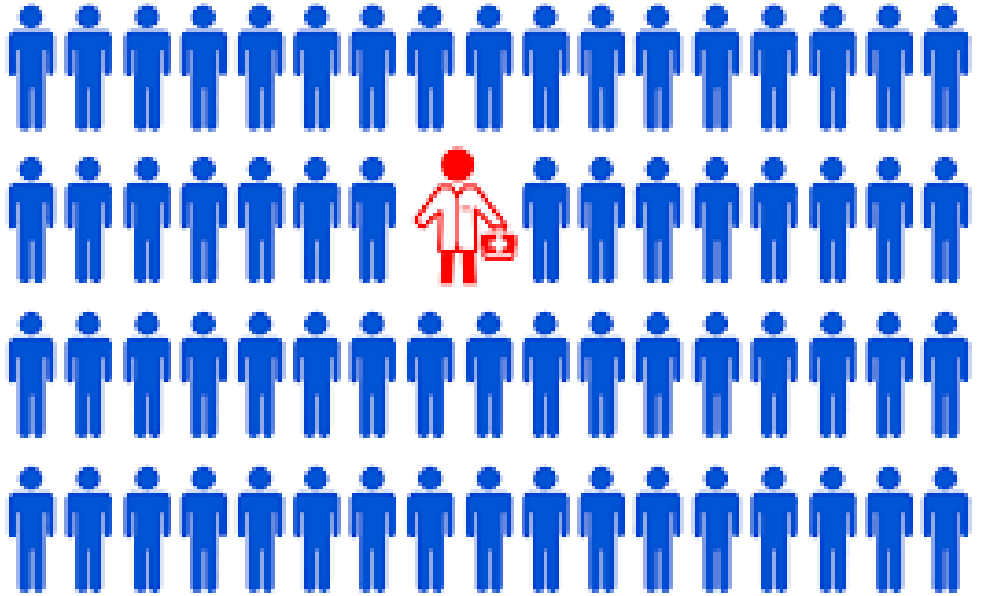
- Collaborative care models show promise of increasing patient satisfaction in rheumatology
- There is a shortage of rheumatologists relative to patient demand
- Collaboration between rheumatologists and other physicians and nonphysician allied health professionals is increasingly necessary to meet patients' needs

Collaborative Care Within Sri Lankan Rheumatology Services

- Different from MDT s
- A continuous feedback loop
- **Need service providers other than for the rheumatologist and medical officers**

Collaborative Care Within Sri Lankan Rheumatology Services

- Lack of a proper feedback mechanism – Can be established via platforms like WhatsApp
- Doctor/Nurse/Therapist to patient ratio



2018 EULAR recommendations- Role of the nurse in the management of chronic inflammatory arthritis

eular

1. Rheumatology nurses are part of a healthcare team

2. Rheumatology nurses provide evidence-based care

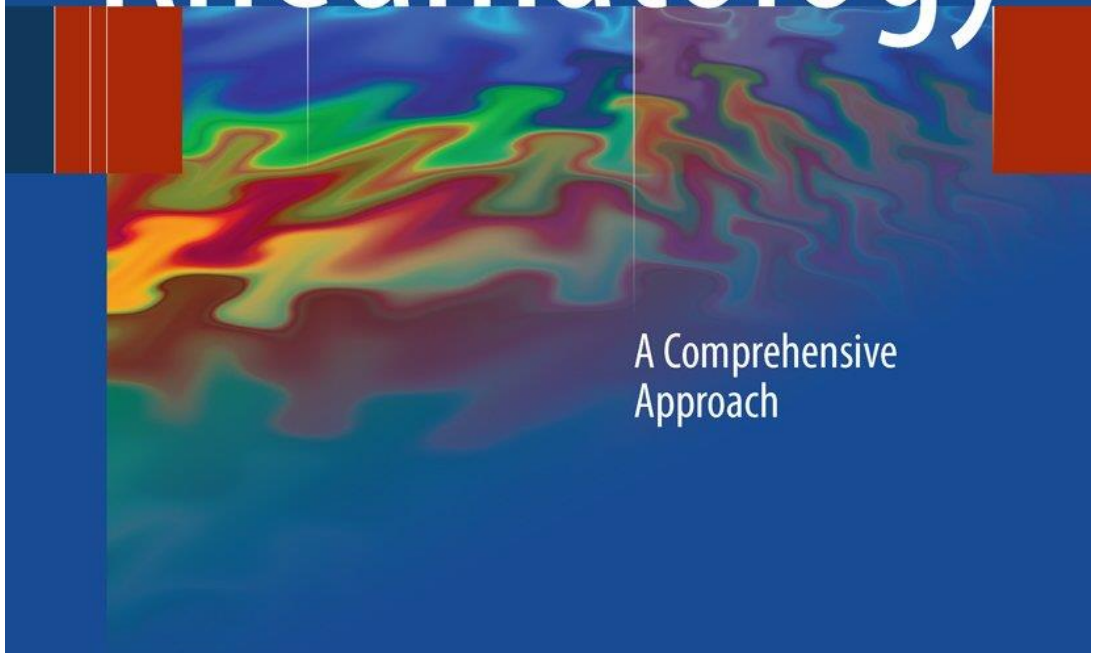
3. Rheumatology nursing is based on shared decision-making with the patient

What options do we have in SL?

- Courses like ASPIRE (ASia-Pacific Initiative for Rheumatology Nurse Education)
- Rigorous and standards-based curriculum established to cater to the educational needs of rheumatology nurses in the region
- Patient assessment; treatment and self-management education; and disease monitoring and follow-up care in RA

Yuri Nakasato
Raymond L. Yung
Editors

Geriatric Rheumatology



A Comprehensive Approach

Springer

APLAR

AYR Symposium

RHEUMATOLOGY IN THE ELDERLY

7 DECEMBER 2022 (WED) 14:55 - 16:10

Dr Elaine Au
Division Chief of Clinical Immunology
Queen Mary Hospital
Hong Kong

Age-related changes in immune system and the consequence of immunosenescence

Prof Raymond Yung
Director, Geriatrics Centre and Institute of Gerontology
University of Michigan
USA

Patterns of rheumatological diseases in older adults and key geriatrics concept

Dr Himantha Atukorale
Consultant in Rheumatology and Rehabilitation
Matara District General Hospital
Sri Lanka

Geriatric rheumatology - time to establish a new subspecialty in elderly care

Chairperson

Dr A T M Tanveer Hason
Associate Professor and Head
Department of Rheumatology
Enam Medical College & Hospital
Bangladesh

Dr Priscilla Wong
Clinical Associate Professor (Honorary) Department of Medicine & Therapeutics
The Chinese University of Hong Kong
Hong Kong

24th Asia-Pacific League of Associations for Rheumatology Congress

Hong Kong Convention and Exhibition Centre

6 - 9 December 2022

Dawn of a new era

Perforated peptic ulcers – a thing of the past thanks to PPI s?

Prostate surgery and BPH – obsolete thanks to Finasteride?

Falls and related fractures – A thing of the past because of geriatric rheumatology?

AGING GRACEFULLY?

Tailoring Care Through Personalized Rheumatology

"One size does not fit all: Embark on a journey toward tailored Rheumatologic treatments."

Above all….

Enhancing patient-physician communication in rheumatology: Exploring behavior patterns, trust, and empathy for improved patient compliance

S. Atukorale[1]; P. De Silva[1]; D. Atukorale[2]

[1]*Matara Hospital, Sri Lanka, Sri Lanka;*

Higher age correlated with the frequency of consultations with rheumatologist ($p < 0.05$). Lower level of patient trust correlated with the number of instances patients became disgruntled and stopped follow ups ($p < 0.01$).

Conclusion: Improving patient-physician communication in rheumatology has the potential to enhance patient trust and promote better

Scarcity of caregivers inevitable

Unless

- Geriatric Rheumatology is established
- Holistic care
- Help of allied health specialists sought
- Functional independence provided

Conclusion

- Ageing is propelled by intricate immunological processes.
- Science will extend lifespan - proactive readiness among healthcare professionals.
- Today's nuclear family structure - lacks the capacity to adequately support the elderly.
- Initiating geriatric rheumatology and fostering collaborative care - resilience.
- Objective: Cultivate a functionally independent, joyful, and pain-free elderly population.

Thank you!