Implementation of frailty screening in people living with HIV: lessons from the Silver Clinic

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NHS Foundation Trust

Geriatric syndromes in people with HIV

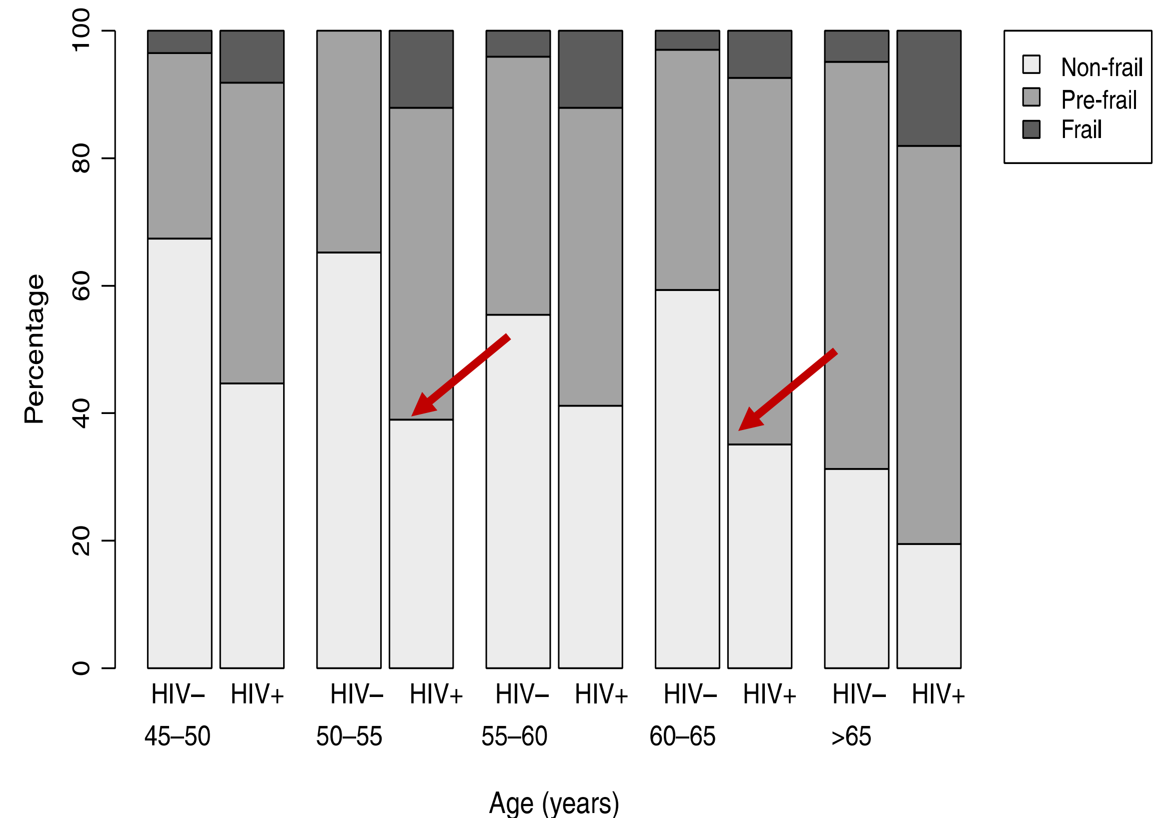
Increasing problems seen in older adults including:

- Complex multimorbidity
- Polypharmacy
- Mobility decline
- Falls
- Functional impairment- difficulties of activities of daily living/self-care
- **Frailty**

Frailty in people with HIV

- Appears earlier than in HIV-negative cohorts
- Risk factors mirror that seen in HIV-negative cohorts

- Frailty in HIV is important:
  - Mortality
  - Fracture and falls
  - Incident comorbidities
  - Major predictor of independence



Kooij KW, et al; AGEhIV Cohort Study Group. HIV infection is independently associated with frailty in middle-aged HIV type 1-infected individuals compared with similar but uninfected controls. AIDS. 2016 Jan;30(2):241-50

Summary of guidance from learned societies

Source	Recommendations
BHIVA Standards of Care 2018[1]	/ Where possible, involvement of **geriatrician** with HIV knowledge / Multidisciplinary services – other specialties and **primary care** / **Care coordination** for those with complex care issues
BHIVA Monitoring Guidance 2019 (interim update)[2]	/ All **medications** reviewed and documented at every clinic visit / Fragility fracture risk assessment in all >50 years every 3 years / Colorectal and breast cancer screening offered as per national guidelines / Annual cardiovascular risk assessment in all patients >40 years
European AIDS Clinical Society (EACS) Version 11 2021[3]	/ Perform periodic **medication** review / **Consider screening for frailty in PLWH >50 years** / Screen for **falls** annually: have you fallen in the last year?
International AIDS Society Guidance 2020[4]	/ Close and sustained attention to **polypharmacy** (AIII*) / **Assess mobility & frailty if aged ≥50 years, using frailty tool validated in all PLWH (BIa*)** / Assess cognitive function every other year (using validated tool) if >60 years (BIII*)
Australasian Society for HIV Medicine[5]	/ Endeavour to provide a **holistic model of care** – **primary care physician central** to a MDT, working to **optimise function and quality of life** for ageing HIV population / Consider **comprehensive geriatric assessment** and formal **geriatrician referral** in older PLWH with multimorbidity at risk of, or with, a **'geriatric syndrome'**

1. BHIVA Standards of Care for People Living with HIV 2018. Available at: https://www.bhiva.org/file/KrfaFqLZRlBhg/BHIVA-Standards-of-Care-2018.pdf Accessed June 2022
2. BHIVA Guidelines for the Routine Investigation and Monitoring of Adult HIV-1-positive Individuals (2019 interim update). Available at: https://www.bhiva.org/file/DqZbRxfzlYtLg/Monitoring-Guidelines.pdf Accessed June 2022
3. EACS Guidelines Version 11.0, 2021. Available at: https://www.eacsociety.org/media/final2021eacsguidelinesv11.0_oct2021.pdf Accessed June 2022; **4.** Saag MS, et al., JAMA 2020;324:1651–69; **5.** ASHM HIV patient populations with special considerations 2019. Available at: https://hivmanagement.ashm.org.au/ageing-with-hiv-infection/comprehensive-geriatric-assessment-and-a-change-in-approach-to-the-care-of-ageing-people-with-hiv-infection/ Accessed June 2022

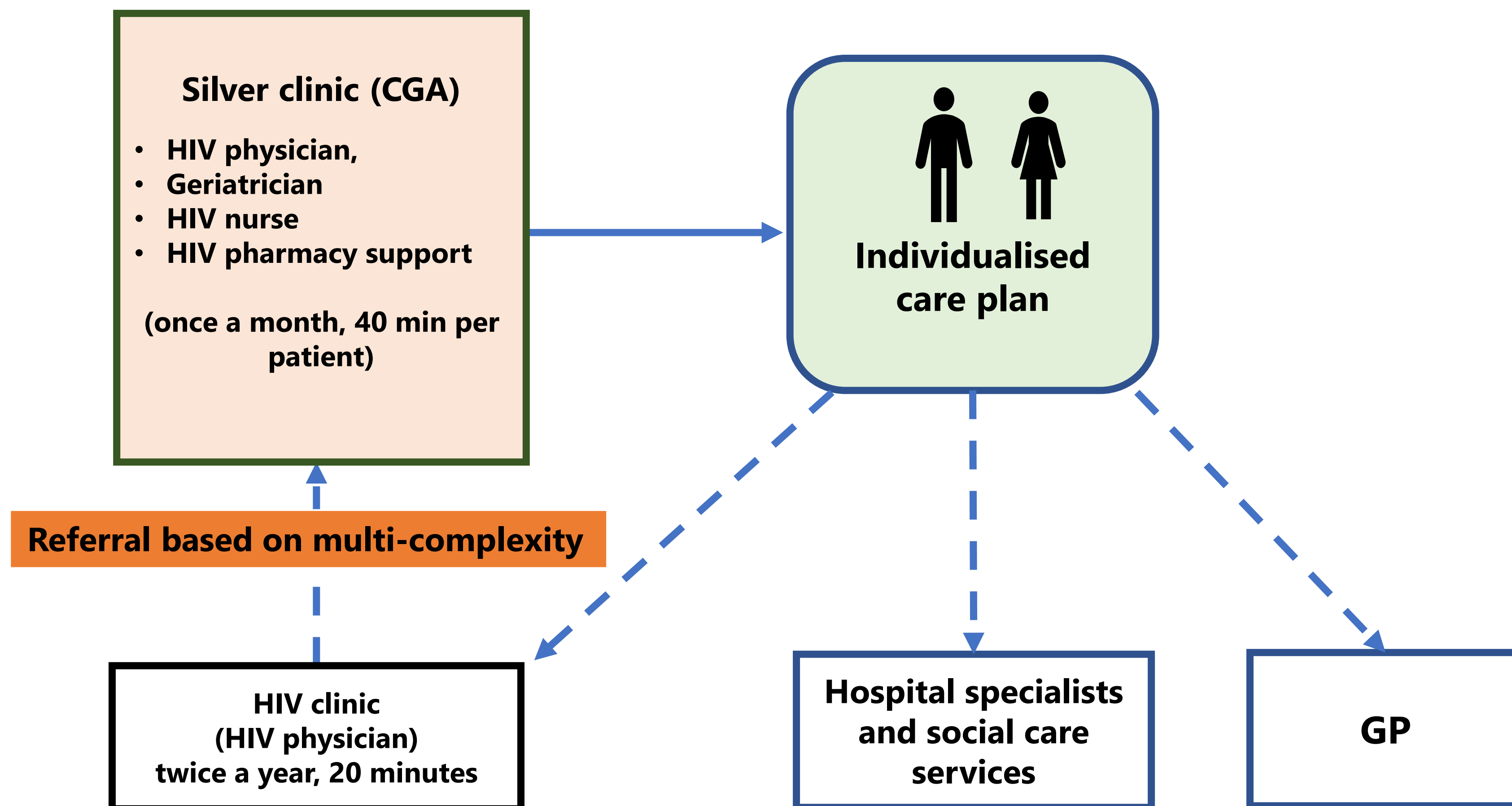
Silver clinic: Brighton UK

Comprehensive geriatric assessment

Mobility: falls, physical activity
Mind: cognitive function
Medications: polypharmacy
Multicomplexity: multimorbidity, psychosocial issues
Matters most: patients' health outcome goals an preferences

+

HIV



Evaluation of a Combined HIV and Geriatrics Clinic for Older People Living with HIV: The Silver Clinic in Brighton, UK. Geriatrics. 2020;5(4).

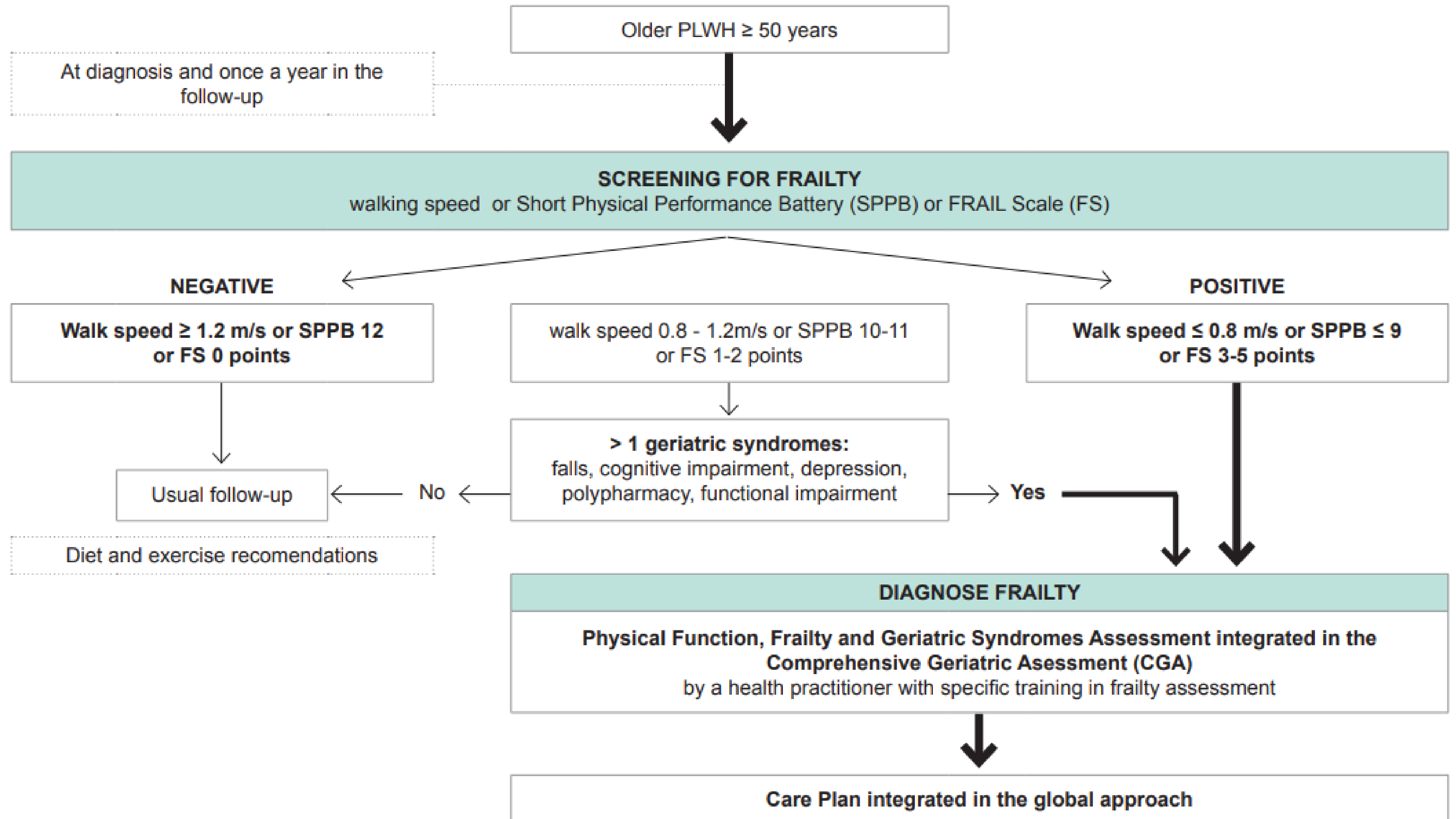
Who?

How often?

How?

What next?

Algorithm Recommended for Frailty Screening



Adapted from Brañas F, et al. European Geriatric Medicine. 2019;10(2):259-265

What do we tell the patient?

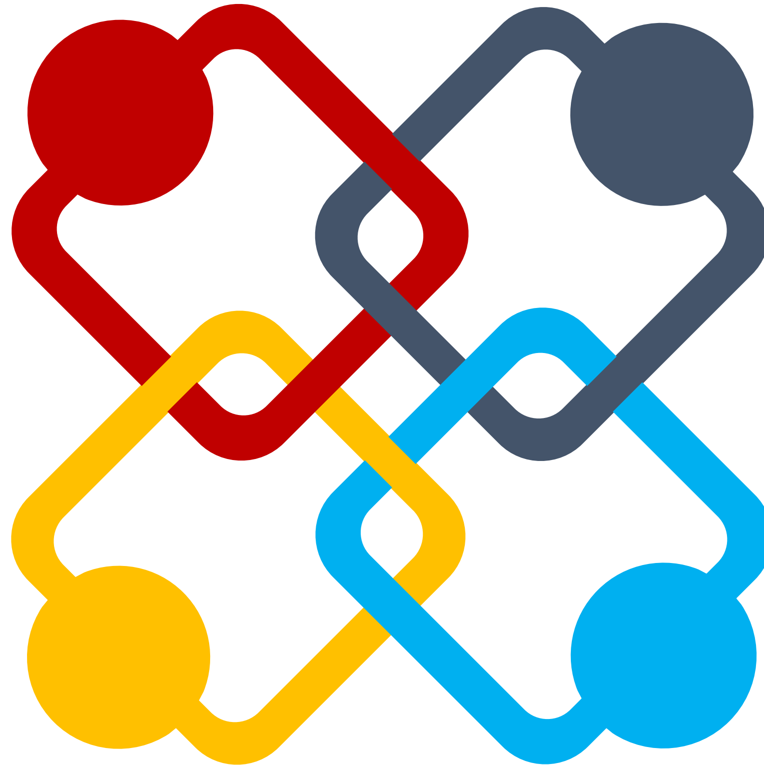
Co-production of a pathway

HIV team[1]

- When?
- How often?
- Which tool?
- What next?

Patients[1]

- Thoughts on frailty?
- How to discuss?
- When to discuss?



Admin team[1]

- When to book?
- Where?

GP

- What next?

1. St Clair-Sullivan N, Vera JH, HIV Med. 2023 Apr;24(4):480-490. doi: 10.1111/hiv.13419. Epub 2022 Oct 13. PMID: 36229192

Which tool?

- **PRIMSA 7 questionnaire**
- **Walking speed (gait speed):** 5 minutes, space
- **Timed up and go test (TUGT) : 5 minutes, space**
- Edmonton frail scale: 5 minutes
- Clinical frailty scale* :
- **FRAIL scale: 3 minutes**
- Electronic frailty index: 3 minutes

Clinical Frailty Scale*

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 category 1. Often, they exercise or are very **active occasionally**, e.g. 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 <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.

* 1. Canadian Study on Health & Aging, Revised 2008.
2. K. Rockwood et al. A global clinical measure of fitness and frailty in elderly people. CMAJ 2005;173:489-495.

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- **Low specificity**
- **Accuracy of tests depends on the prevalence of the population**
- **Logistics**

BGS. Fit for frailty https://www.bgs.org.uk/sites/default/files/content/resources/files/2018-05-23/fff_full.pdf

FRAIL scale: 0 Robust, 1-2 Prefrail, 3+ Frail

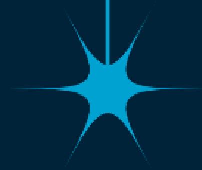
Fatigue	**R**esistance	**A**mbulation	**I**llness	**L**oss of weight
Tired all or most of the time	Able to climb 1 flight of stairs without aid	Able to walk 100m without aid or stop	>4 comorbidities	>5% loss in one year
• Mood disorder • Medical diagnosis • Lack of exercise • Sleep • Side effects	• Mobility problems • Falls • Further functional difficulties • MDT involvement		• Optimised? • Non-ARV review • DDI	• Mood disorder • Medical diagnosis • Nutrition • BMI • Dietician

Morley 2012, J. Nutr Health &Aging. Pubmed ID 22836700

Which age cut off?
N=2457

64%

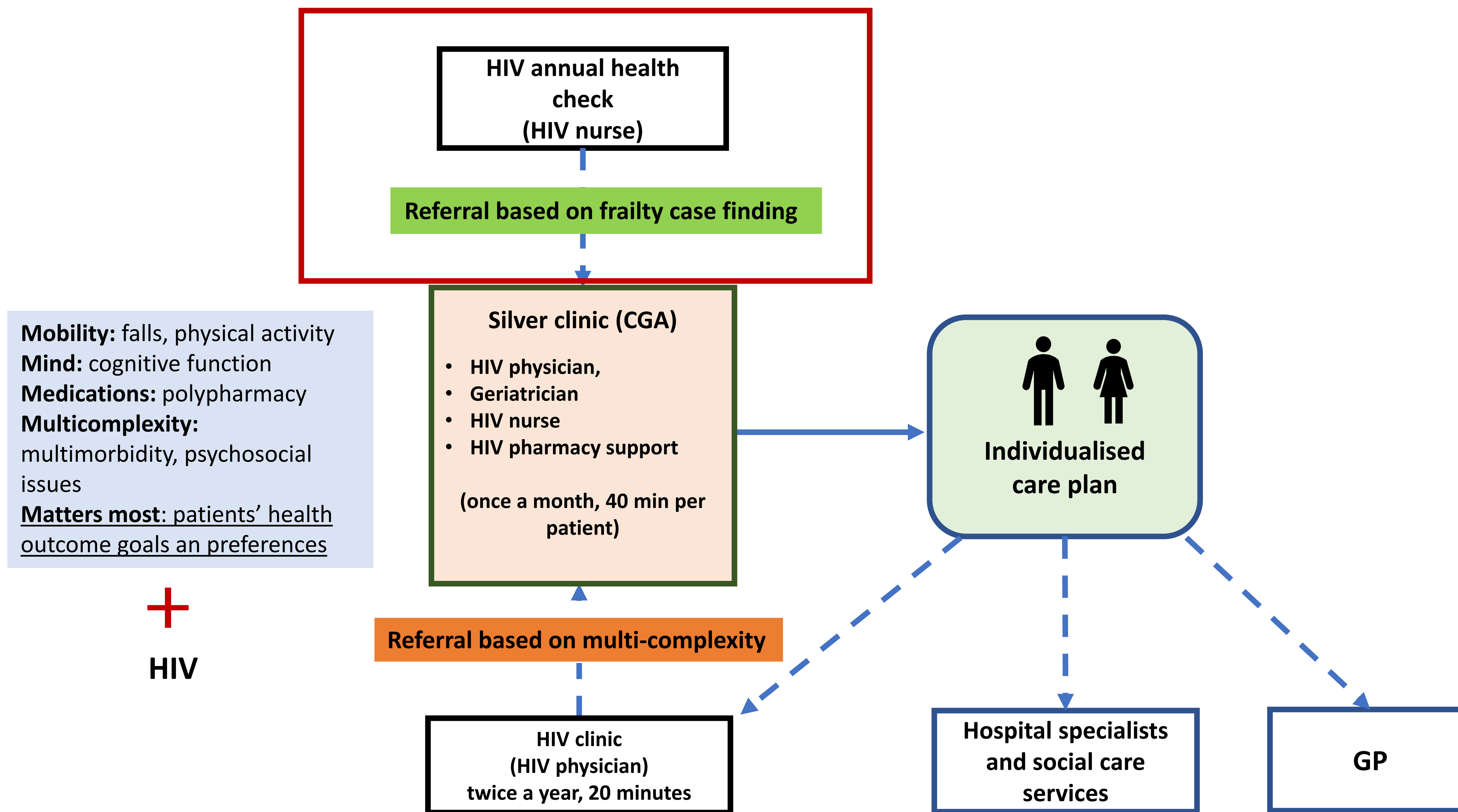
PLWH >50 years old



23%

PLWH >60 years old

Silver clinic: Brighton



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Lawson unit
Frailty screening pathway

HIV annual health check (once a year)

Nurse screens all patients aged over 60 using FRAIL scale

Robust
- Recommendations on healthy living (HL) and social prescribing

Pre-frail
- GP informed
- Discussion with silver clinic team if any concerns
- HL +social prescribing

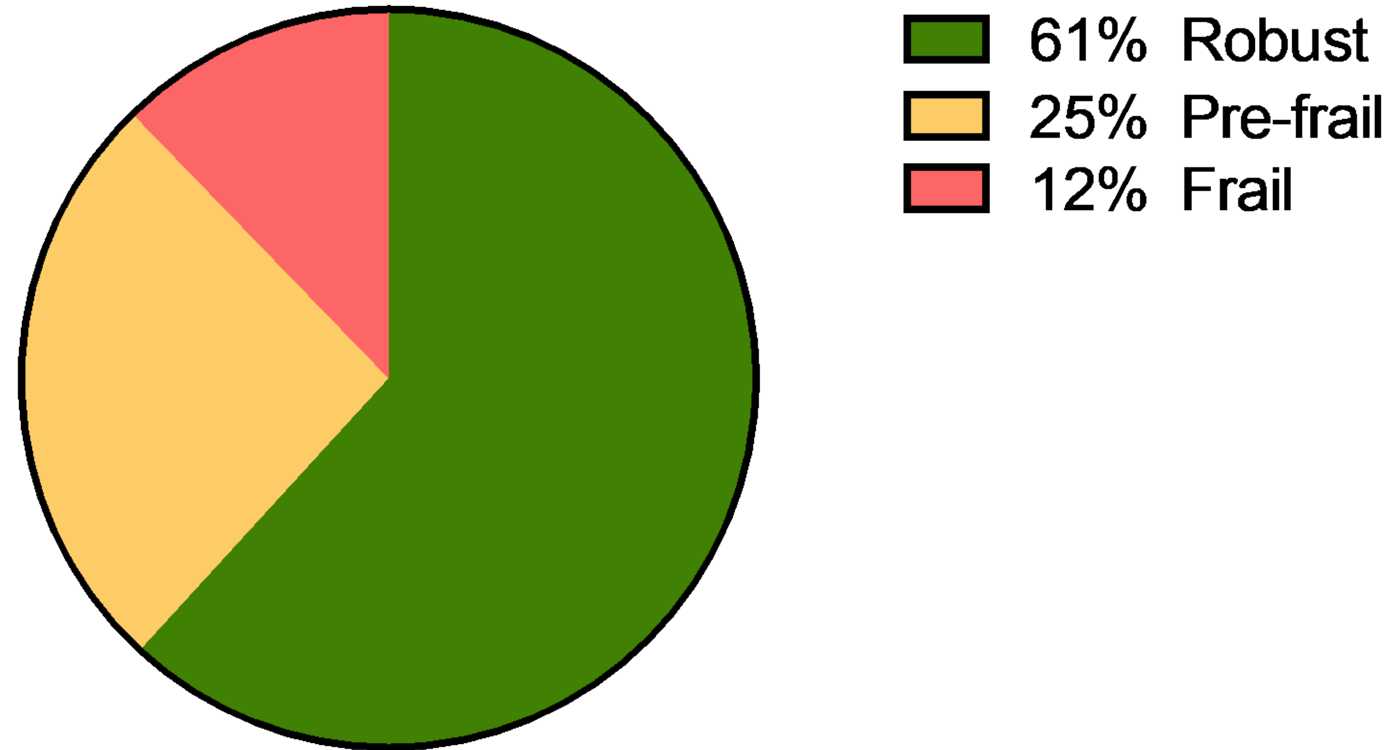
Frail

Silver clinic appointment offered
- GP informed
- SC referral form completed
- Admin team informed

Silver clinic nurses book patient for pre-assessment and bloods prior to appointment

Patient seen in the silver clinic

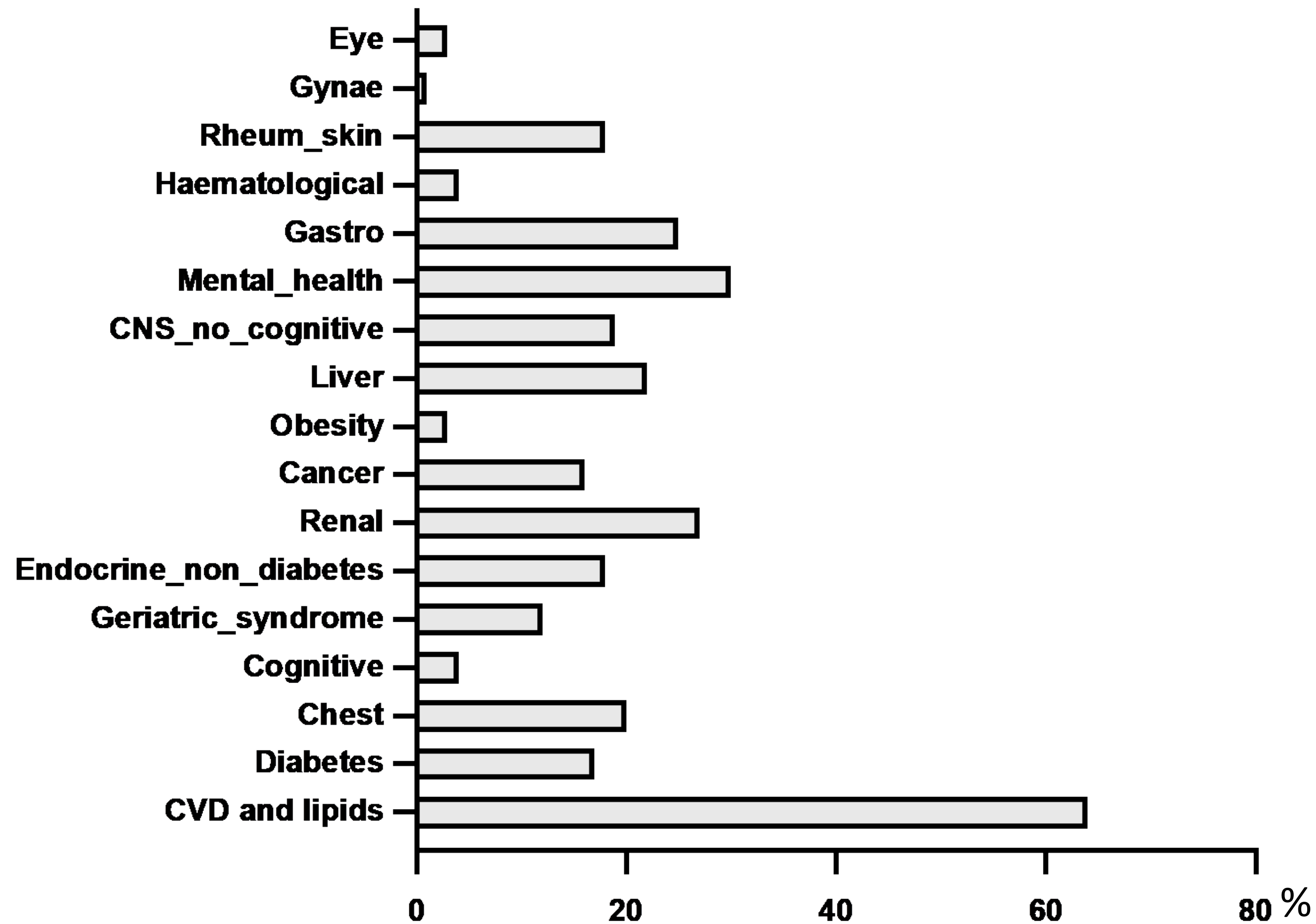
77% screened for frailty
55 identified as frail and offered an appointment to the Silver clinic
10 declined



CLINICAL CHARACTERISTICS (N=456)	FRAIL N=56	PRE-FRAIL N=118	ROBUST N=282
Age (years)	66 (60-84)	68(60-90)	66(60-86)
Male, n(%)	42(91.3)	106(89)	260(92)
White ethnicity, n(%)	41(89)	110(93)	257(91)
Identified sexuality, n(%)			
MSM	40 (87)	10(84)	225(79)
Comorbidities*	5 (2-9)	4 (1-10)	3(0-19)
Comedications*	10 (1-25)	6 (0-20)	3.5(0-17)
Bone densitometry, n(%)			
Osteoporosis	8 (17)	17(14)	44(21)
Osteopenia	17 (37)	11(44)	97(46)
Normal BMD	10 (23)	36(30)	65(31)
HIV clinical parameters			
Time since HIV diagnosis: years (median; range) *	27(13-39)	21(0-39)	19(2-38)
Duration of cART: years (median; range) *	24(2-35)	20(035)	17(1-35)
cART based regimen n(%)			
Protease inhibitor	5(9)	7(6)	21(7.)
NNRTI	16 (29)	53(45)	125(44.)
INSTI	33(59)	53(45)	131(46)
INSTI+PI	2(4)	4(3)	4 (1)
Injectable	0	0	1
HIV RNA< 50 copies/mL, n(%)	56(100)	114(96)	277(98)
Current CD4 (cells/μL)	689 (181-1956)	609(100-1499)	647(62-1383)
CD4:CD8 ratio	0.84 (0.08-2.9)	0.71 (0.1-3)	0.74(0.09-3.1)
Geriatric syndrome	10 (17)	16(13%)	30(10)

* $p<0.05$, one way anova

Burden of comorbidities for PLWH > 60



Lessons and recommendations

Service planning

Make the most of existing services

Education and training

Involve patients

Build an evidence base

Summary

- Frailty and geriatric syndromes are common and appear at younger ages in PLWH
- Therefore, frailty “screening’ advocated by some (expert consensus)
- Screening for frailty in outpatient HIV services in the UK is feasible and acceptable
- Evidence of benefit still unknown

Acknowledgments

Silver Clinic Team
Jonathan Roberts
Zoe Adler
Tom Levett
Juliet Wright

Lawson Unit
Kiersten Simmons
Claire Norcross

NHIR Research Team
Jonathan Roberts
Tom Levett
Richard Harding
Katherine Bristowe
Matthew Maddowx
Yi Deok Hee
Gary Parteger
Natalie St Clair-Sullivan

Kings College Hospital
Dan Trotman
Liz Hamlyn

Special thanks to all nursing and admin staff at the Lawson unit

Thank you