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Joint working to improve the metabolic patient pathway

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NHS Lothian

Joint working to improve the metabolic patient pathway

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Conflict of Interest

In relation to this presentation both speakers declare no conflicts of interest. Linda Panton has previously received Speaker fees and Advisory Board payments from Janssen, Gilead and Viiv

Speakers are required by the Federation of the Royal Colleges of Physicians to disclose conflicts of interest at the beginning of their presentation, with sufficient time for the information to be read by the audience. They should disclose financial relationships with manufacturers of any commercial product and/or providers of commercial services used on or produced for patients relating to the 36 months prior to the event. These include speaker fees, research grants, fees for other educational activities such as training of health professionals and consultation fees. Where a speaker owns shares or stocks directly in a company producing products or services for healthcare this should also be declared. Finally, other conflicts of interest including expert functions in health care or healthcare guidance processes should be declared (eg if the professional is a member of a health board). The Federation considers it good practice to also make speakers' disclosures available in digital format(s) relating to the educational event.

Joint Working to improve the metabolic patient pathway

- Why do we monitor?
- Annual reviews
- Development of algorithm and referral form
- Case study
- Benefits and challenges
- Next steps

Why do we monitor?

- Inflammatory response due to living with HIV
- Persistent immune activation
- Long term use of ART
- Untreated and unsuppressed viral load
- modifiable and lifestyle-associated cardiovascular risk factors are more prevalent in the HIV-positive population
- Ageing cohort
- People living with HIV have higher prevalence of co-morbidities than the general population[1]

[1]Serrao, R et al Non-AIDS related co-morbidities in people living with HIV age 50 yrs and older. The Aging Positive Study. Int. Journal of Infectious Diseases 2019 79 940100

Development pathway

Weight gain
Raised HbA1c
Hypertension
Qrisk3 scores>10%

Not all patients getting annual reviews

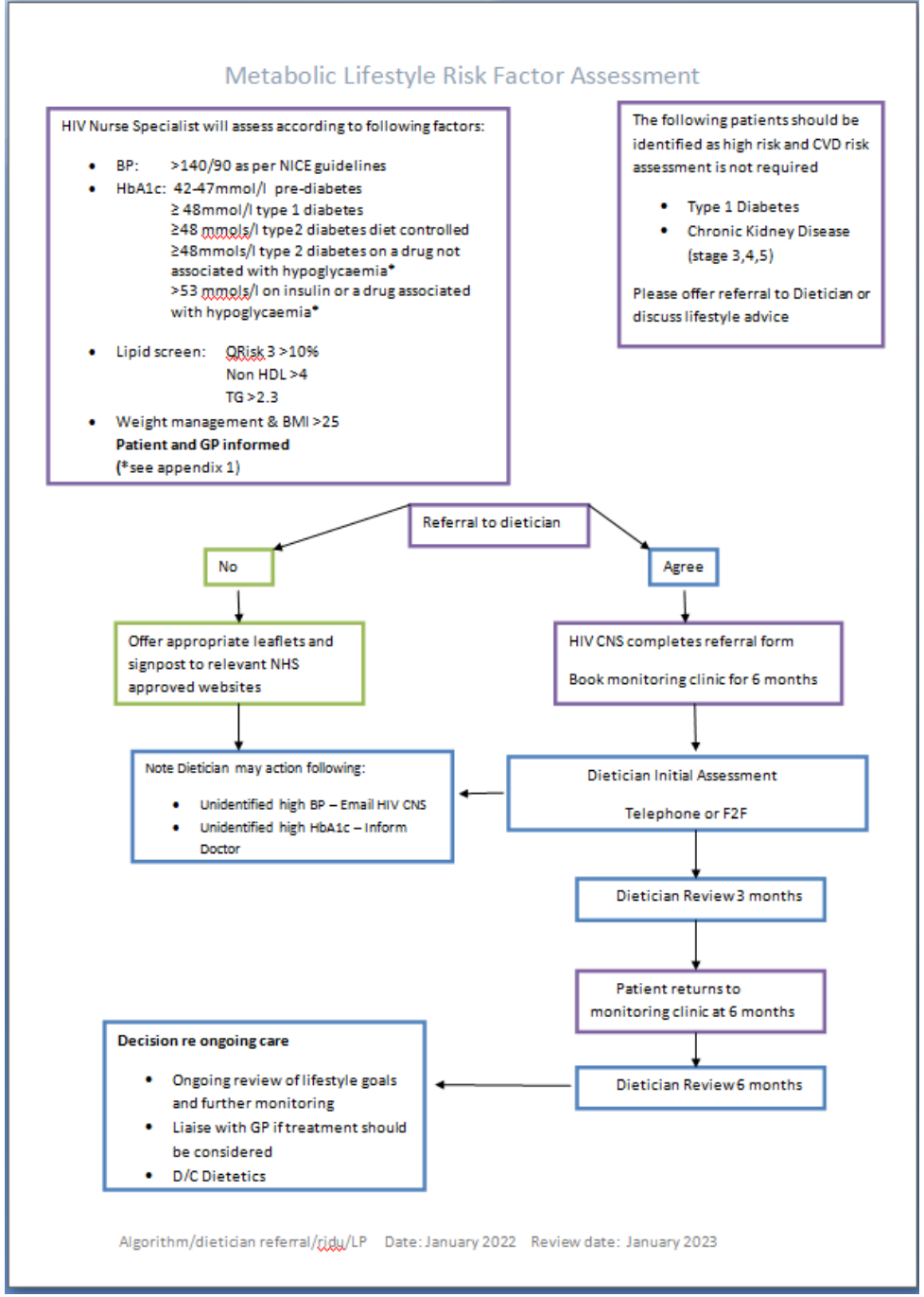
Adhoc dietician referrals

Inequity of service to patients within NHS Lothian Trust

References: 1. Annual health review for people living with HIV – A good practice guide. NHIVNA, accessed April 2022. Available at: https://www.nhivna.org/file/KQGroTiJRzpuq/HIV-annual-health-review.pdf. 2. BHIVA guidelines for the routine investigation and monitoring of adult HIV-1 positive individuals (2019 interim update). BHIVA, accessed April 2022. Available at: https://www.bhiva.org/file/DqZbRxfzlYtLg/MonitoringGuidelines.pdf.

New referral process

- Numerous meetings
- Liaise with other specialist services
- HIV single service – joint working to ensure access from both sites
- BHIVA guidelines, NICE guidelines, EACS guidelines
- Development of algorithm to visualise cut-off values
- Referral form clearly outlining main problem



Metabolic lifestyle risk assessment algorithm

Case Study

- JC
  - 28yrs old
  - Perinatally acquired
  - African
  - Fit – plays sport – football

Reason for referral

- Newly Diagnosed Type 2 Diabetes – doesn't want Metformin
- Raised Lipids
- High BP - Amlodipine
- NAFLD - Ultrasound

REFERRAL FORM TO DIETICIAN

Patient Name: CHI:

Date	02.09.21
Weight	75Kg
Ht	1.71m
BMI	25.8
Weight gain/ loss?	
Total Cholesterol	5.8
HDL	0.9
Cholesterol:HDL ratio	6.3
LDL	3
Non HDL > 4	4.9
Triglycerides > 2.3	4.1
QRisk3 >10%	4.6%
New diabetes diagnosis type 1/type2?	New Type 2 – HbA1c 55
HbA1c 42-47 pre diabetes	
HbA1c >48 type 1 diabetes	
HbA1c > 48 type 2 diet controlled	
HbA1c >48 type 2 on medication	
BP reading (>140/90)	155/88
Statin	

Qrisk3

Smoking Status		Atypical Antypsychotic Medication (olanzapine, quetiapine, risperidone, clozapine)	
Angina or Heart attack in a 1st Degree relative <60		Regular Steroid tablets	
CKD – stage 3,4,5		Erectile dysfunction	
Atrial Fibrillation		Systemic Lupus Erythematosus	
On Blood Pressure Treatment	Amlodipine	Severe mental illness (e.g schizophrenia, bipolar or 2 antidepressants or 1 anti-dep and an antipsychotic)	
Migraines		Rheumatoid arthritis	

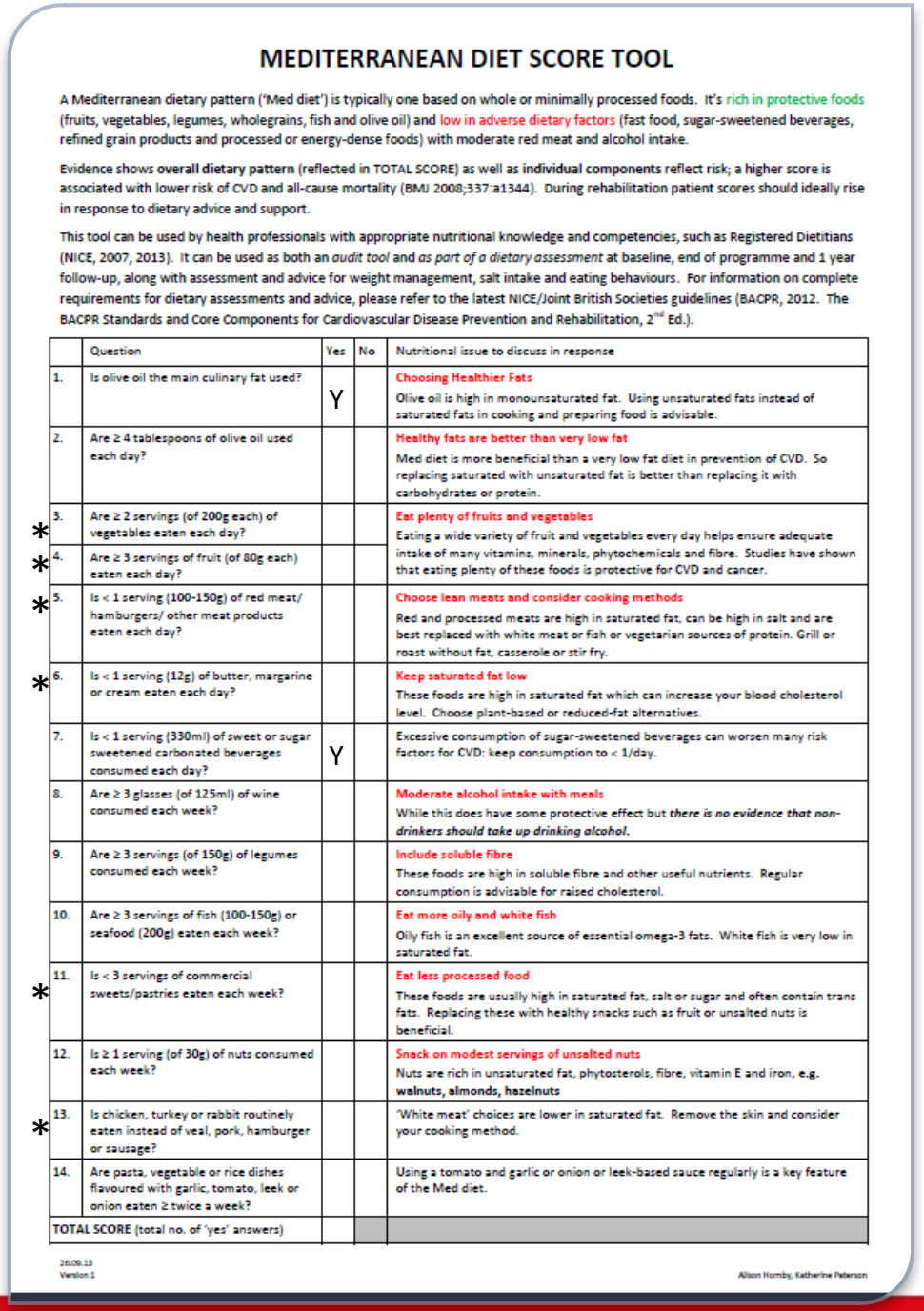
Goals

- Complex Co-morbidities - Multiple Goals
- Agree Goals:
  - Weight loss - 5% weight loss[1]
    - Calories / Portion Control / Exercise
  - TG ≤2.3[2]
    - Sugar /Alcohol
  - Non HDL ≤4.0[2]
    - Portfolio /Mediterranean Diet
  - BP <140/90
    - Salt
  - HbA1c <48[3]
    - Sugars / when best to eat them

[1]Paulweber et al European evidence base guidelines for the prevention of type 2 diabetes; Horm Metab Res.2010;42 (suppl 1), S3-36
[2]NICE Jan 2022
[3]NICE Type 2 Diabetes in Adults: Management . Mar 2022

Portfolio/Mediterranean Diet

- Mediterranean Diet Score Tool
  - http://www.cardiacrehabilitation.org.uk/docs/Mediterranean-Diet-Score.pdf
- 2 /14



MEDITERRANEAN DIET SCORE TOOL

A Mediterranean dietary pattern ('Med diet') is typically one based on whole or minimally processed foods. It's rich in protective foods (fruits, vegetables, legumes, wholegrains, fish and olive oil) and low in adverse dietary factors (fast food, sugar-sweetened beverages, refined grain products and processed or energy-dense foods) with moderate red meat and alcohol intake.

Evidence shows **overall dietary pattern** (reflected in TOTAL SCORE) as well as **individual components** reflect risk; a higher score is associated with lower risk of CVD and all-cause mortality (BMJ 2008;337:a1344). During rehabilitation patient scores should ideally rise in response to dietary advice and support.

This tool can be used by health professionals with appropriate nutritional knowledge and competencies, such as Registered Dietitians (NICE, 2007, 2013). It can be used as both an *audit tool* and *as part of a dietary assessment* at baseline, end of programme and 1 year follow-up, along with assessment and advice for weight management, salt intake and eating behaviours. For information on complete requirements for dietary assessments and advice, please refer to the latest NICE/Joint British Societies guidelines (BACPR, 2012. The BACPR Standards and Core Components for Cardiovascular Disease Prevention and Rehabilitation, 2nd Ed.).

		Question	Yes	No	Nutritional issue to discuss in response
	1.	Is olive oil the main culinary fat used?	Y		**Choosing Healthier Fats** Olive oil is high in monounsaturated fat. Using unsaturated fats instead of saturated fats in cooking and preparing food is advisable.
	2.	Are ≥ 4 tablespoons of olive oil used each day?			**Healthy fats are better than very low fat** Med diet is more beneficial than a very low fat diet in prevention of CVD. So replacing saturated with unsaturated fat is better than replacing it with carbohydrates or protein.
*	3.	Are ≥ 2 servings (of 200g each) of vegetables eaten each day?			**Eat plenty of fruits and vegetables** Eating a wide variety of fruit and vegetables every day helps ensure adequate intake of many vitamins, minerals, phytochemicals and fibre. Studies have shown that eating plenty of these foods is protective for CVD and cancer.
*	4.	Are ≥ 3 servings of fruit (of 80g each) eaten each day?			
*	5.	Is < 1 serving (100-150g) of red meat/ hamburgers/ other meat products eaten each day?			**Choose lean meats and consider cooking methods** Red and processed meats are high in saturated fat, can be high in salt and are best replaced with white meat or fish or vegetarian sources of protein. Grill or roast without fat, casserole or stir fry.
*	6.	Is < 1 serving (12g) of butter, margarine or cream eaten each day?			**Keep saturated fat low** These foods are high in saturated fat which can increase your blood cholesterol level. Choose plant-based or reduced-fat alternatives.
	7.	Is < 1 serving (330ml) of sweet or sugar sweetened carbonated beverages consumed each day?	Y		Excessive consumption of sugar-sweetened beverages can worsen many risk factors for CVD: keep consumption to < 1/day.
	8.	Are ≥ 3 glasses (of 125ml) of wine consumed each week?			**Moderate alcohol intake with meals** While this does have some protective effect but ***there is no evidence that non-drinkers should take up drinking alcohol.***
	9.	Are ≥ 3 servings (of 150g) of legumes consumed each week?			**Include soluble fibre** These foods are high in soluble fibre and other useful nutrients. Regular consumption is advisable for raised cholesterol.
	10.	Are ≥ 3 servings of fish (100-150g) or seafood (200g) eaten each week?			**Eat more oily and white fish** Oily fish is an excellent source of essential omega-3 fats. White fish is very low in saturated fat.
*	11.	Is < 3 servings of commercial sweets/pastries eaten each week?			**Eat less processed food** These foods are usually high in saturated fat, salt or sugar and often contain trans fats. Replacing these with healthy snacks such as fruit or unsalted nuts is beneficial.
	12.	Is ≥ 1 serving (of 30g) of nuts consumed each week?			**Snack on modest servings of unsalted nuts** Nuts are rich in unsaturated fat, phytosterols, fibre, vitamin E and iron, e.g. **walnuts, almonds, hazelnuts**
*	13.	Is chicken, turkey or rabbit routinely eaten instead of veal, pork, hamburger or sausage?			'White meat' choices are lower in saturated fat. Remove the skin and consider your cooking method.
	14.	Are pasta, vegetable or rice dishes flavoured with garlic, tomato, leek or onion eaten ≥ twice a week?			Using a tomato and garlic or onion or leek-based sauce regularly is a key feature of the Med diet.
	TOTAL SCORE (total no. of 'yes' answers)				

26.09.13
Version 1

Alison Hornby, Katherine Paterson

Recommendations Agreed by Pt & Dt

Increase fruit intake x 3/day, vegetables x 2/day with main meals
Reduce chocolate and sweets intake x 3 /week. When best to have a sweet treat (after meal)
Increase chicken/fish dishes - reduced red meat dishes x 1/week
Advised on olive spreads
Reduce Salt intake (small amount in cooking only, doesn't add to table now)
Reduce portion sizes
Regular exercise (has to be careful as has sore knee and toe) - plays football, cycle and considering swimming but not a confident swimmer (advised trying swimming lessons)
Reduce bacon/sausage at breakfast - using avocado, eggs and hash browms (as treat) or Branflakes
Alcohol - never been excessive drinker as gets bad hangovers

Info sent in post
- Visual Aids
- Written goals

Mediterranean diet score

Aim to improve your score by at least 2 points to reduce your risk of heart disease

Is olive oil the main fat used in cooking?  ☐	Are 4 or more 4 tbsp olive oil used daily?  ☐	Are 2 or more servings of vegetable eaten daily?  ☐	Are 3 or more servings of fruit eaten daily?  ☐	Is less than 1 serving of red meat/hamburgers eaten daily?  ☐
Is less than 1 serving of butter/margarine/cream eaten daily?  ☐	Is less than 1 serving of sweetened carbonated drink consumed daily?  ☐	Are 3 or more 125ml glasses of wine eaten weekly?  ☐	Are 3 or more servings of legumes eaten weekly?  ☐	Are 3 or more servings of fish/seafood eaten weekly?  ☐
Are fewer than 3 servings of sweets/pastries eaten weekly?  ☐	Is at least 1 x30g serving of nuts eaten weekly?  ☐	Is chicken/turkey/rabbit routinely eaten instead of veal, pork, sausage or processed meat?  ☐	Are tomato, garlic, leek or onion used in pasta or rice dishes more than twice weekly?  ☐	**Your score =** ☐

Mediterranean diet

Research shows that eating a Mediterranean style diet can reduce our risk of heart disease. This diet is typically rich in fruit and vegetables, oily fish and wholegrains with modest amounts of meat and dairy and the main fat source being monounsaturated fats such as olive oil.

Improving your **Mediterranean diet score** can reduce your risk of heart disease.

In what areas would you like to make improvements?

Area of improvement	How will I achieve this?

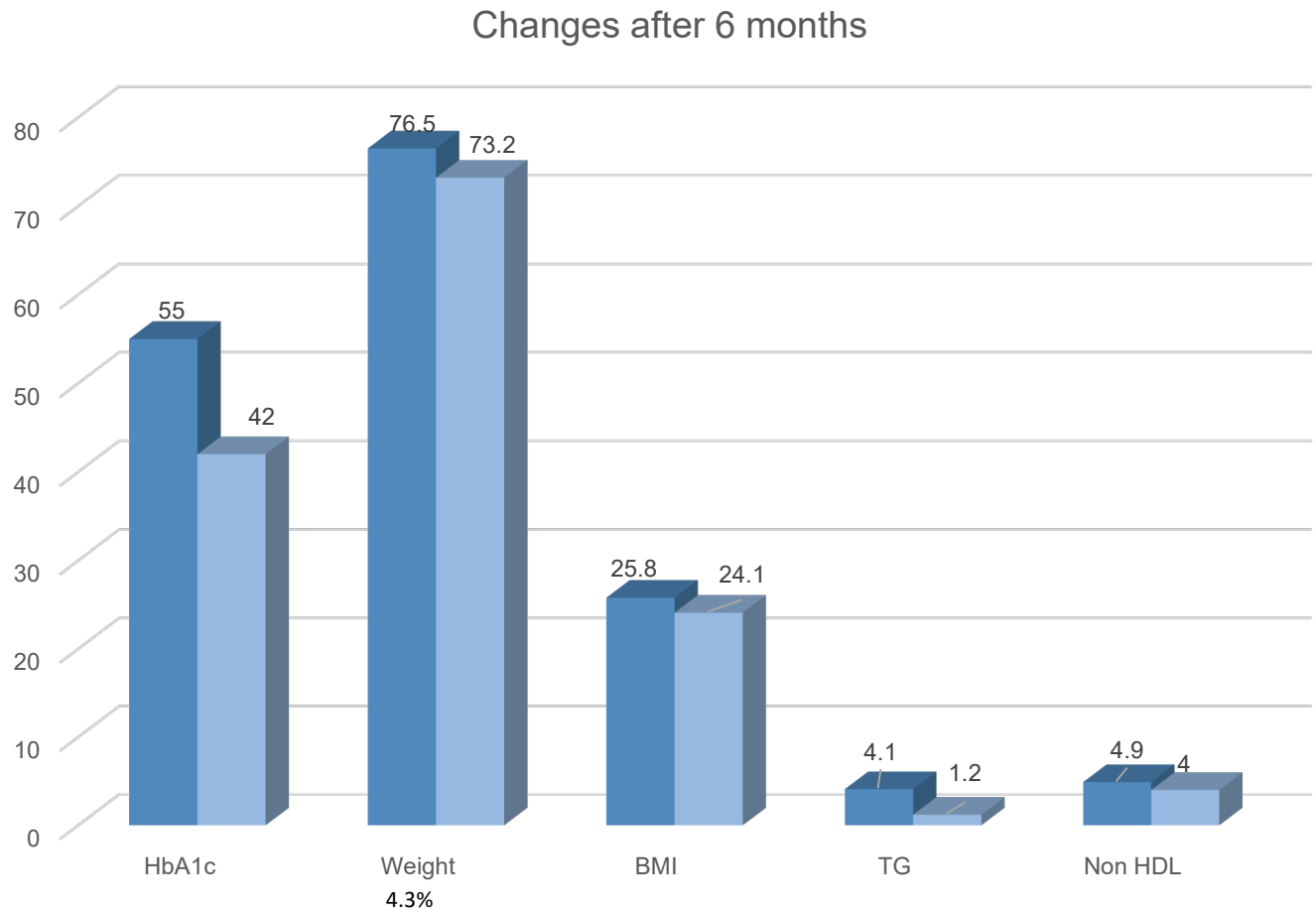
There are some additional changes that you may wish to make in your diet to further reduce your risk of heart disease. Your Dietitian help can make some suggestions.

Reduce the amount of **salt** in your diet	
Increasing the amount of **fibre**	
Include **plant sterols and stanols**	
Include **Soya**	

6 Month Review

BP: 155/88
149/74

QRISK3 : 4.6%
2.7%



What can I Do?

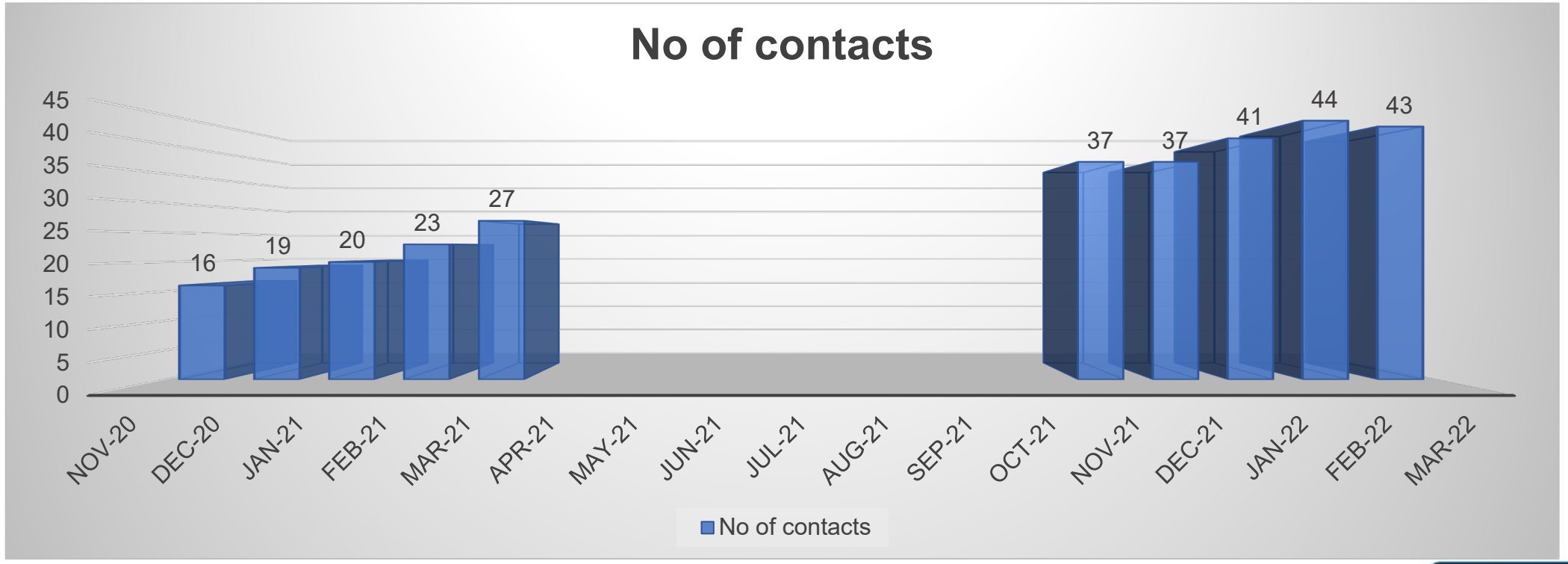
Reassurance – not necessarily what is removed but what is put in!	Cardiovascular superfoods!!
Agree Goals	2 changes every 2 weeks Be prepared that some wont work
Be Realistic – We are all Human!!!	Reduce guilt (builds better relationships)
Allow time	Can take over a year!!

What can I do?

- Websites
  - Mediterranean Diet Score Tool
    - http://www.cardiacrehabilitation.org.uk/docs/Mediterranean-Diet-Score.pdf
  - Heart UK – UCLP, Recipes
    - Heartuk.org.uk
  - Diabetes UK
    - Diabetes.org.uk
  - NHS 12 Week Weight Loss Programme
    - https://www.nhsinform.scot/healthy-living/12-week-weight-management-programme
  - BDA Food Facts Sheets
    - https://www.bda.uk.com/food-health/food-facts/all-food-fact-sheets.html
- Weight Management Team – Diabetes Remission Programme*

*Lean et al: Lancet 2018:391 p541-551

Comparison of Monthly Contacts



Challenges and benefits of Referral Process

CHALLENGES

- Not all patients get annual review with HIV CNS
- Clinicians showed poorer uptake of service across both sites
- Lipids and HbA1c only in annual review blood bundle order
- More referrals in → longer waiting list
- Increasing number of patients with abnormal readings

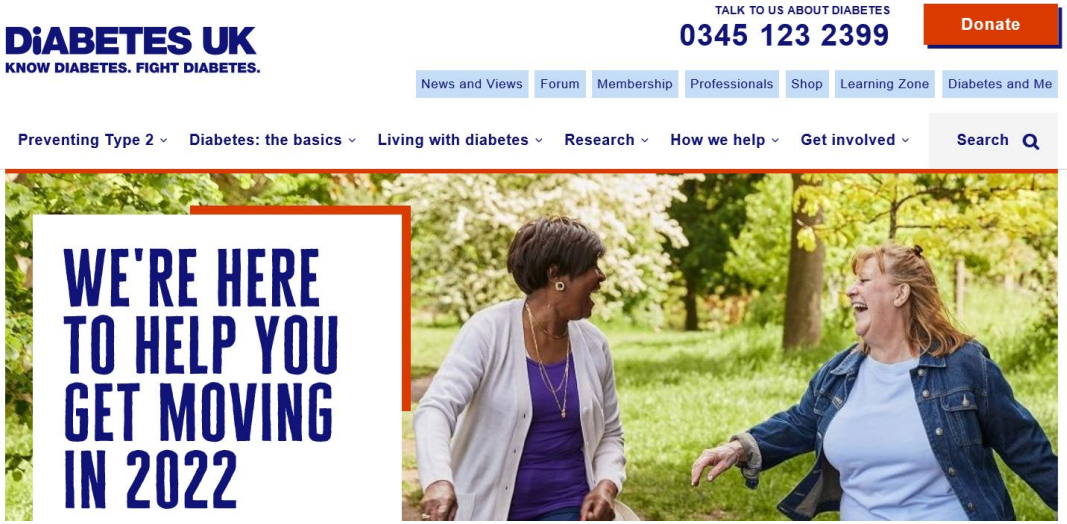
BENEFITS

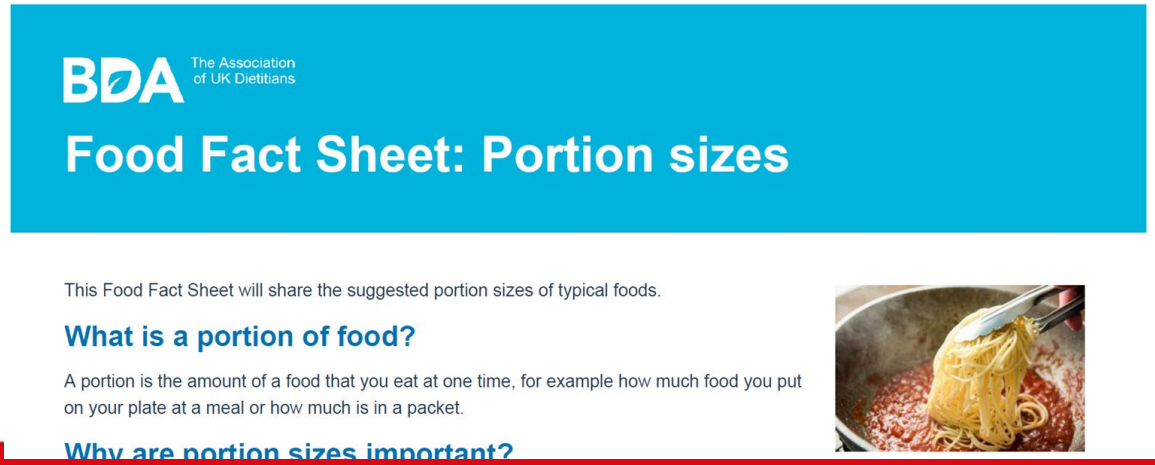
- Excellent results for majority of patients
- Telephone appointments worked and decreased DNA rates
- Streamlined process to refer to dietician
- Increased CNS knowledge of goals and targets

NEXT STEPS

- Larger audit of all results of BP, HbA1c and lipids
- Share results with clinicians across sites to promote value
- Present results to other units
- Find alternative pathways for those patients who decline referral to dietician

Questions





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NATIONAL HIV NURSES ASSOCIATION
support | research | education

This educational event is supported by unrestricted medical education grants from

The frailty assessment team

Justine Mellor

Manchester University Hospitals Foundation Trust

Development of a frailty pathway to address the needs of older people living with HIV

Justine Mellor, Manchester University NHS Foundation Trust

Conflict of Interest

In relation to this presentation I declare that I have no conflict of interest

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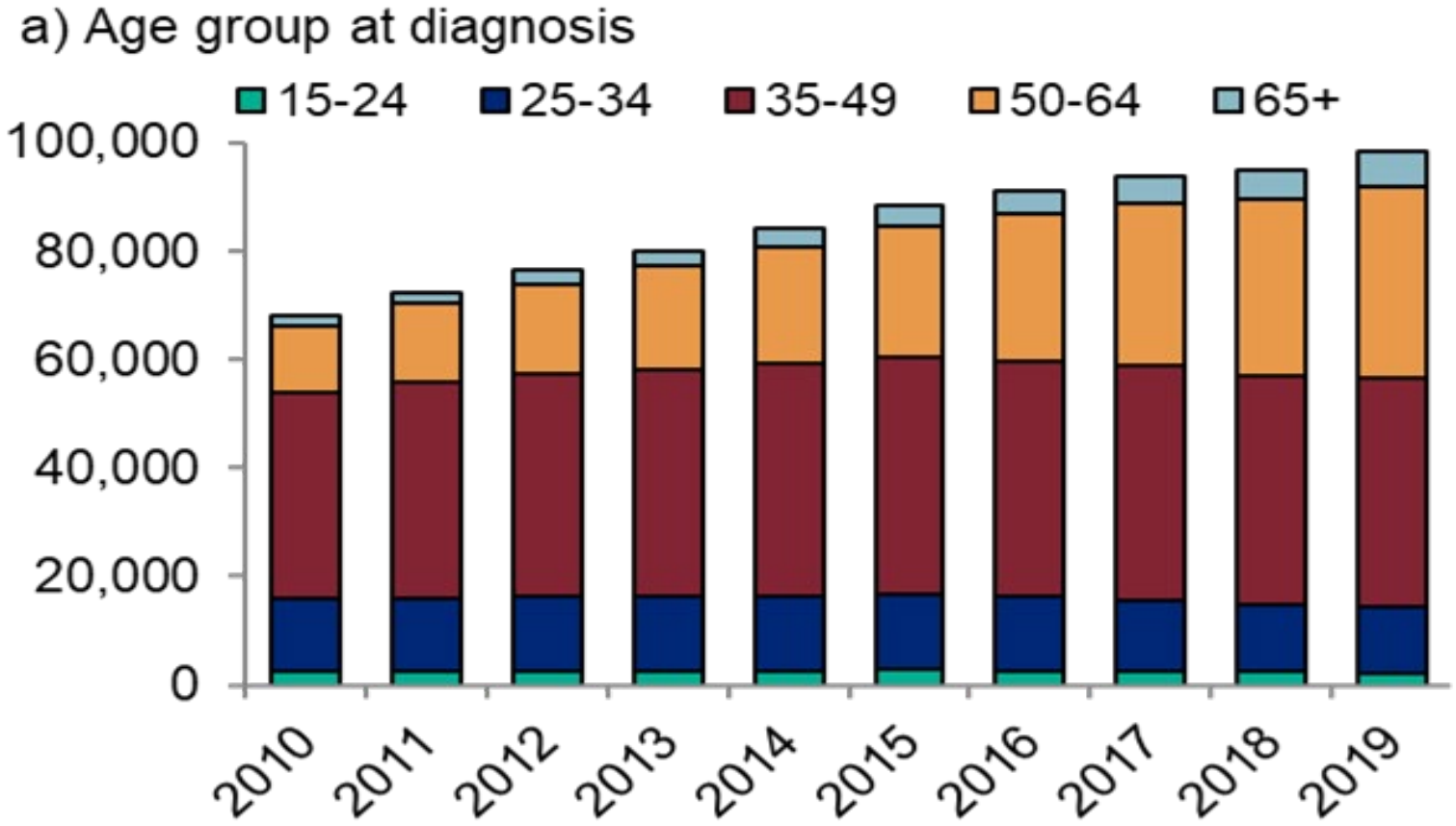
HIV ageing population



Public Health England Slide dataset 2020 Available from: https://www.gov.uk/government/statistics/hiv-annual-data-tables {Accessed 1/2/2021]

Background

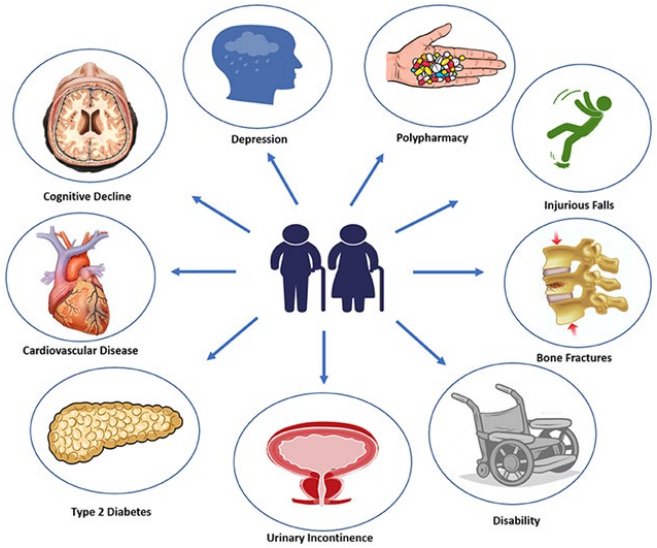
- Hathersage centre cohort = 2095

- >50 years n = 678 (32.3%)
- >60 years n= 163 (7.8%)
- >70 years n= 30 (1.4%)
- >80 years n = 4 (0.2%)

Data taken from HARS data set (Jan 2021)

Patients living with HIV (PLWH)

- Higher incidence of co-morbidities
- Co-morbidities appearing earlier than in the general population
- Combination of accelerated and accentuated risks plus increase in behavioural risks (eg smoking)
- Multi-morbidity, frailty and polypharmacy occur at higher rates and younger ages in PLWH



National Guidance

- BHIVA (2016) – Older patients (50 years and over)
- Medication review/DDI
- Close liaison with GP
- FRAX
- Symptoms of cognitive impairment, CVD, history of excessive alcohol – investigations should be considered
- Screening for ca breast and colorectal cancers as per HIV negative people

BHIVA (2016) BHIVA guidelines for the routine investigation and monitoring of adult HIV-1-positive individuals 2016 (2019 interim update) Available from: https://www.bhiva.org/file/DqZbRxfzlYtLg/Monitoring-Guidelines.pdf [Accesed 1/2/2021]

EACS guidelines (2019) - **Frailty in the context of ageing**

Frailty syndrome is more prevalent than expected in PLWH compared to HIV-negative matched controls.

Instruments to measure - frailty phenotype or frailty index

EACS –promote CGA aimed at personalising interventions according to benefits/priorities for patients – MDT approach to maximise overall health with ageing and improve quality of life

Recommend:

- Prescribe physical activity with weight resistance training component to sustain and recover physical function
- Address polypharmacy
- Screen for, and address modifiable causes of fatigue
- PLWH weight loss – screen for reversible causes and consider food fortification and protein/caloric supplement
- Prescribe Vit D in deficiency

EACS (2019)European AIDS Clinical Society guidelines version 10.0. Available from https://www.eacsociety.org/files/2019_guidelines-10.0_final.pdf [Accessed 1/2/2021]

How does the world of geriatric care, primary care and HIV care intersect?

Brighton – Silver clinic (monthly)
Referral criteria: age >50, difficulty in coping at home, multimorbidity, polypharmacy; staff include HIV MD, geriatrician, HIV clinical nurse specialist, pharmacist

London – Chelsea and Westminster – Separate MDT clinic - Referral criterion: age ≥ 50.
Consultant, HIV NP, trainee; supported by specialist pharmacist and dietician
https://hivglasgow.org/wp-content/uploads/2018/11/P153.pdf

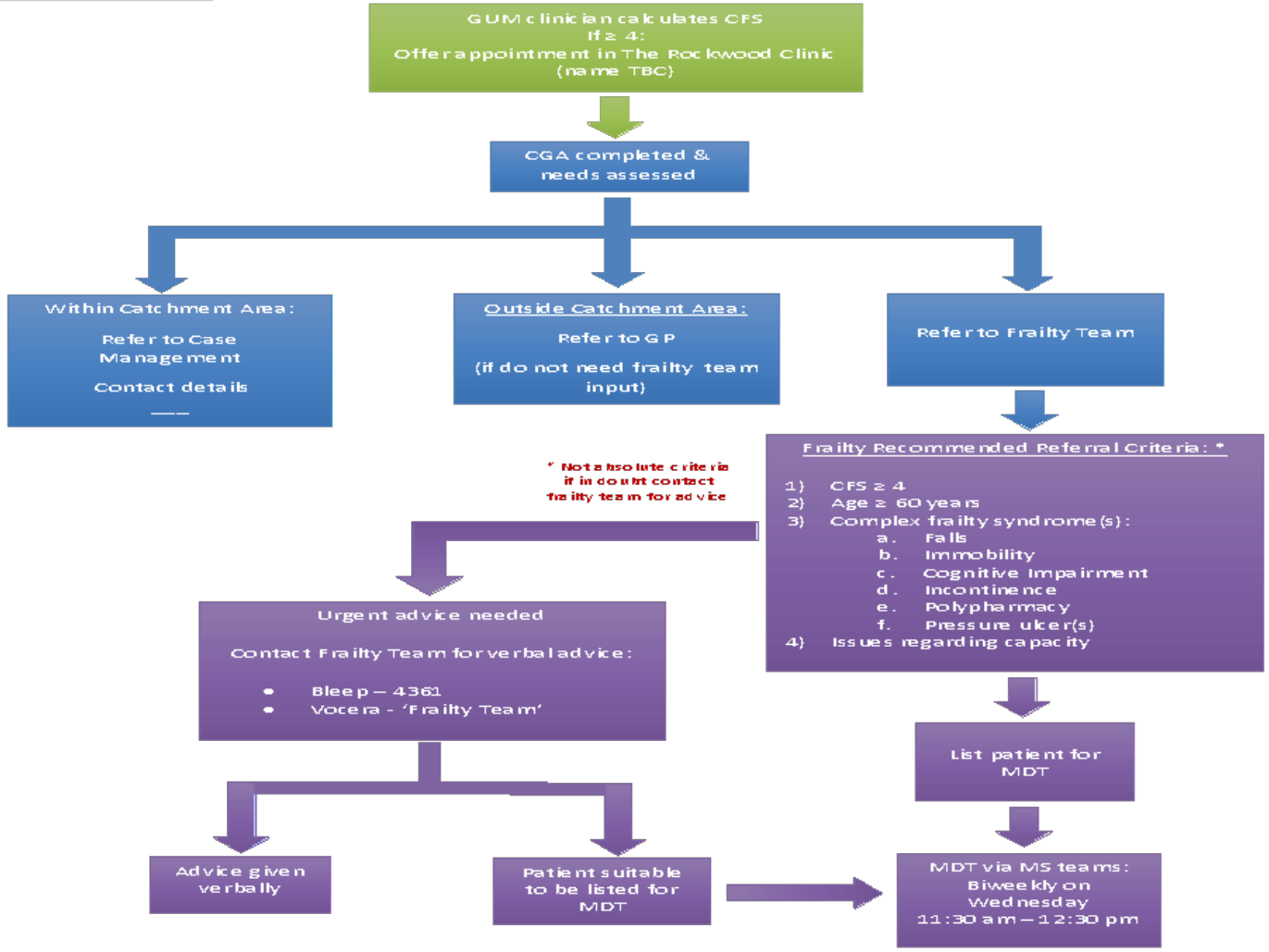
Liverpool – HIV Clinician /GP model - stable patients with HIV monthly virtual clinics
https://www.nhivna.org/file/5d2700a6807a7/MasChaponda-KateMcKinnell.pdf

Manchester – The DOCS GP practice/NMGH

What did we do next?

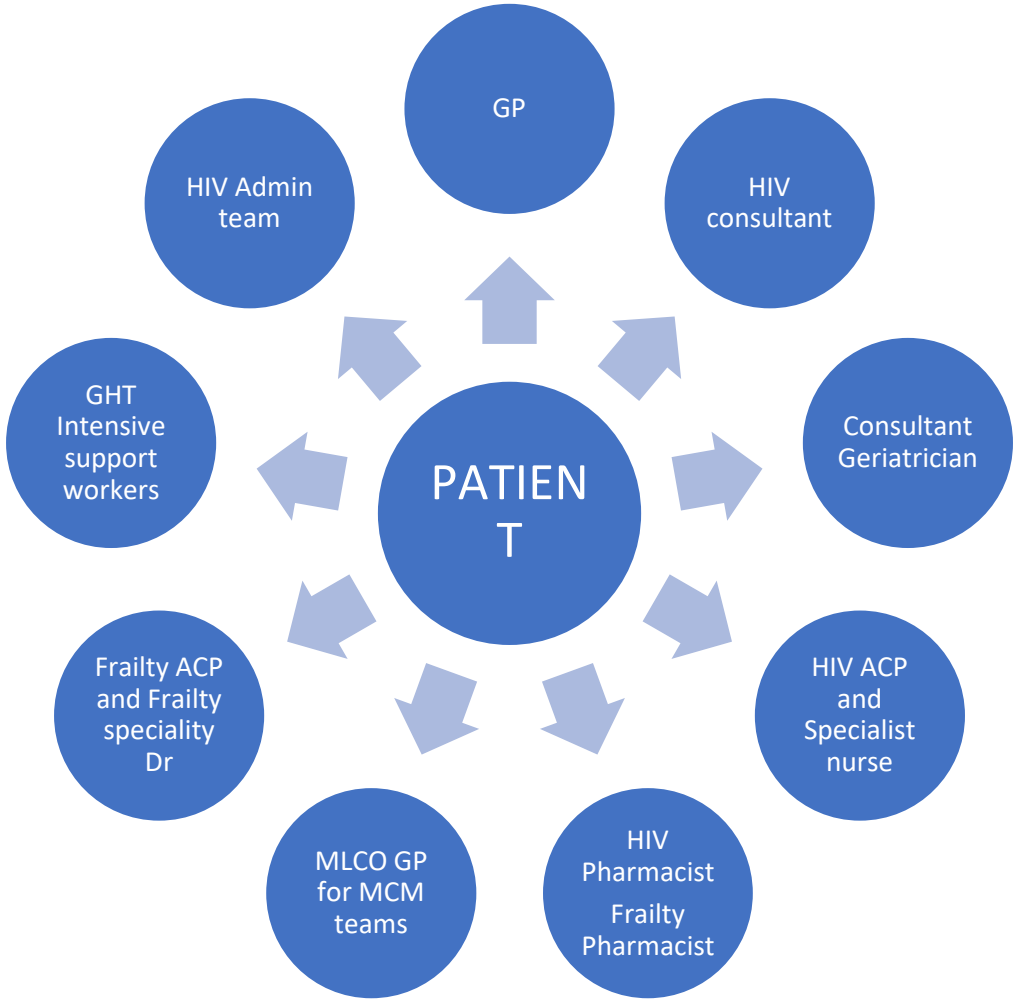
- ACP/HIV specialist pharmacy – links made with frailty team to start discussions
- Understanding of each others roles
- Shadowing
- Training
- CNS – complex database
- New model of care - proposing MDT approach to incorporate CGA. Will include remote support from frailty team and active case management teams in MLCO

HIV & Frailty Pathway



MDT via MS teams:
Biweekly on Wednesday(s)
11:30 am – 12:30 pm

Frailty team



- Increase on demand on the service
- Frailty clinicians not commissioned
- Business case required to expand the service

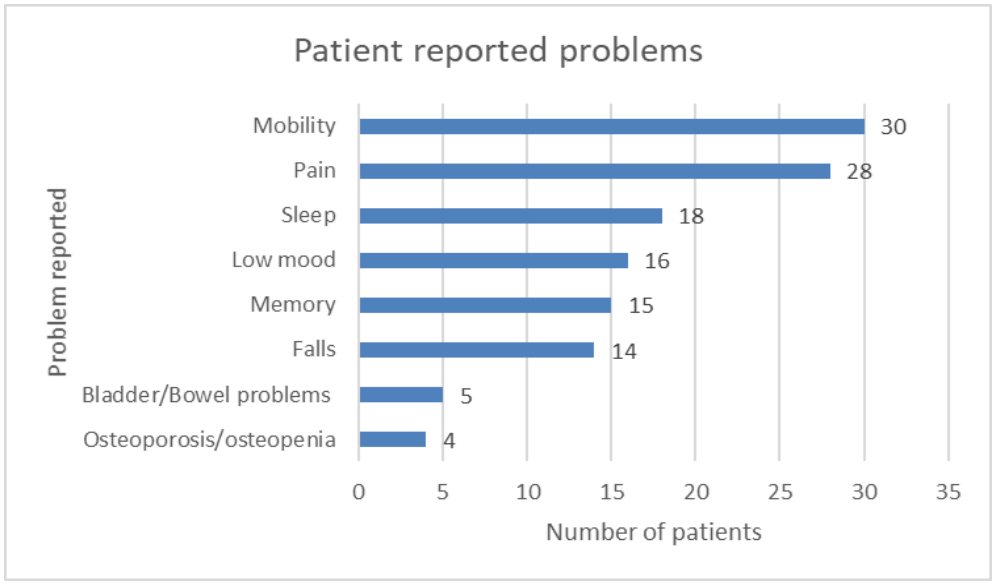
Initial results

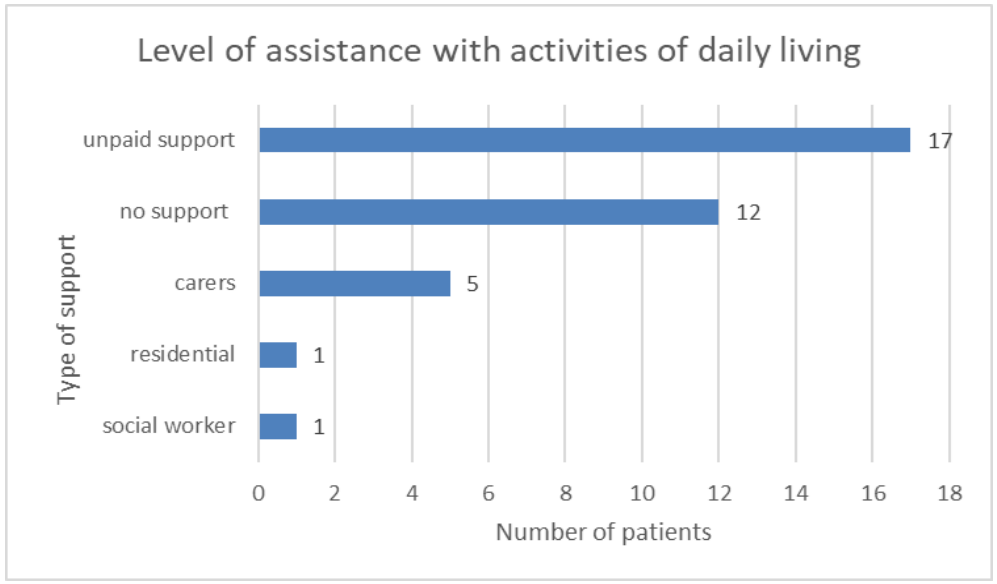
•53 patients were assessed between October 2020 – March 2022.

•Out of these, 36 patients had a CFS score 4 and were eligible for CGA in the frailty clinic.

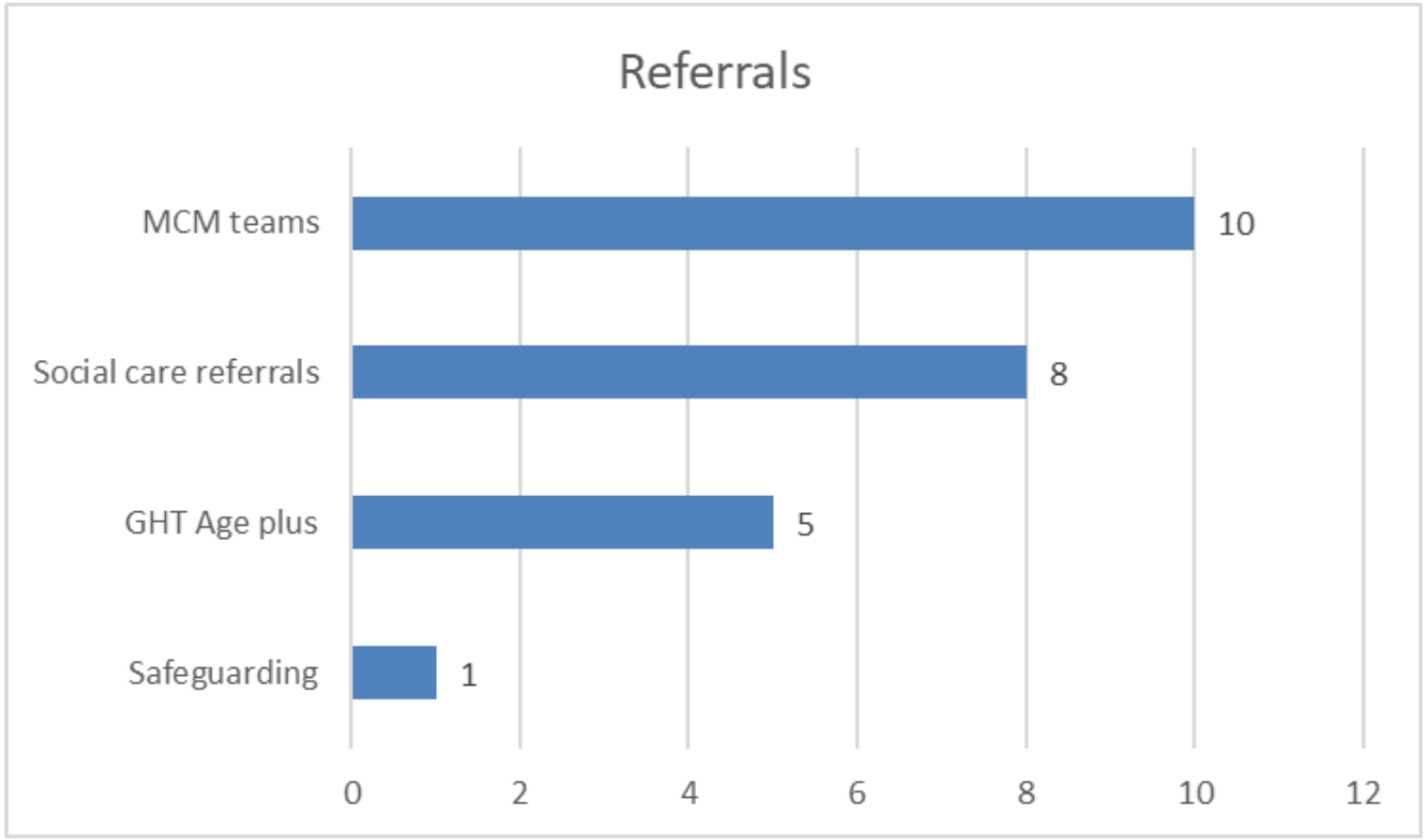
Sex	Male (including transmale) n=28 (77.7%) Female (including transfemale) n=8 (22.2%)
Age	Median age 67 years (range 52-84)
Rockwood clinical frailty score	Median CFS 5 (range 4-7)
Undetectable viral load	Median n=33 (92.6%)
Number of co-morbidities	Median n=3 (range 1-6)
Number of non HIV medications	Median n=11 (range 5-19)

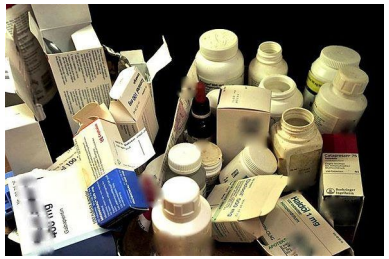
Initial Results





Initial results

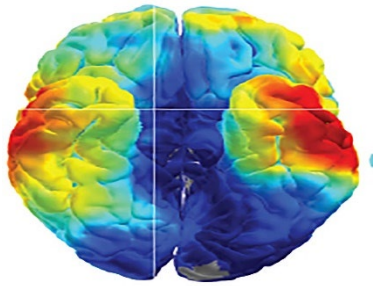




17 (47.2%) deprescribing recommendations were made
26 (72.2%) new medicine recommendations were made
Mainly around pain management, reduction in anticholinerginic burden meds

ART simplification was discussed with 26 (72.2%) patients
20 (55.5%) patients switched ART to reduce pill burden
25 (69.4%) now on a STR post switch compared with 13 (26.1%) pre frailty assessment

6 (16.6%) osteoporosis. 2 (5.5% osteopenia)
3 patients still waiting for DEXA
Diet, vitamin D supplements, referral to bone clinic for bisphosphonates



11 (30.5%) recommended GP to refer for memory assessment
8 (22.2%) direct referrals to gastro, respiratory, cardio, vascular clinic, COPD clinic, Geriatrician

Patient – social isolation

- Used to love reading, unable to get to library due to poor mobility
- Links with older age GHT project
- Now writing a book

Patient – low motivation

- Love of music
- Started drumming again with GHT

Patient – low financial difficulty
Unpaid carer

- GHT financial adviser
- Received large sum of money to cover for years of unpaid carer

Conclusions

- Many older patients living with HIV report a high number of co-morbidities, polypharmacy and factors affecting quality of life.
- A collaborative approach with frailty experts in primary and secondary care facilitates the formulation of action plans to address patients physical, psychological and social needs.
- Further audit of outcomes required to inform business case for further development of the clinic