



NCYPDN

T2 Working Group

Improving outcomes survey

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Epidemiology – rising rates

- Increasing incidence
 - Zero (pre-2000)
 - 0.53/100,000 (2005)
 - 0.72/100,000 (2015)
- 973 (NPDA 2020/21)
 - 12.4% increase; 23.6% new
- 1144 (NPDA 2021/22)
 - 17.5% increase; 24.4% new

Prevalence of children living with obesity, living with severe obesity, overweight or living with obesity combined in Year 6, 2006/07 to 2021/22



* Figures for 2020/21 are based on weighted data, see Methodology and Data Quality section in 2020/21 report for more information.
For more information: Table 1b National Child Measurement Programme, England, 2021/22 School Year



Learning from the
T2DM Spotlight Audit

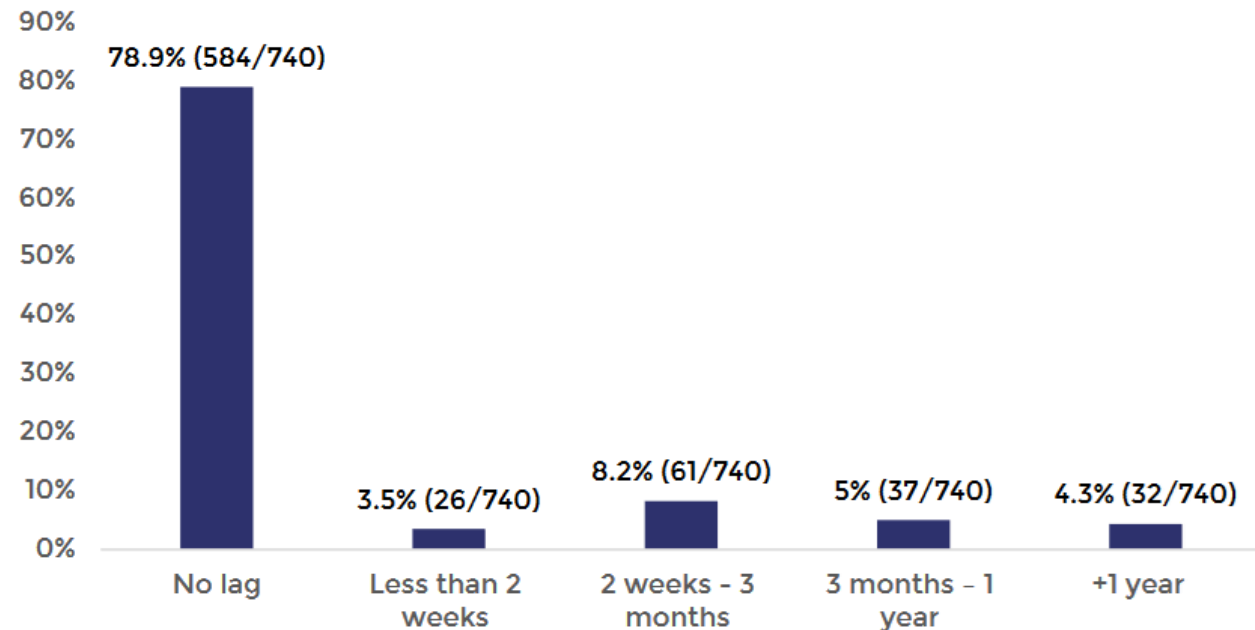
Diagnosis

No one criterion sensitive or specific:

- 85% had 3+ clinical / biochemical markers
 - Obesity (86%)
 - Acanthosis (51%)
 - Raised HbA1C (77%)
 - Absence of diabetes antibodies (40%)
 - Raised blood glucose (47%)

Diagnosis delayed 3 months or more:

- Less experienced PDUs,
- CYP without obesity,
- Higher HbA1C



Complications probably not treated well



Albuminuria in 26%

...But treated in 3.4% - further 7% “required treatment”



Almost 90% did not have liver ultrasounds

Where repeated, increasing proportion of fatty liver found



42% with raised BP

...But only 3.7% 24-ABPM and 6% offered antihypertensives



Only 8% lowered BMI category from diagnosis

- Less likely to receive recommended health checks

2021/22 NPDA Key Findings – Type 2 diabetes

33%

of young people with T2D age 12+ with a complete year of care received all six key health checks in the audit year



46.1%

of young people with T2D had high blood pressure (29.9 for T1DM)



48.3%

of CYP with T2D were assessed as requiring additional psychological or CAMHS support outside of MDT clinics, down from 59.5% in 2020/21



1144

children and young people with T2D were included in the audit, up from 963 in 2019/20



20.6%

of young people with T2D had albuminuria compared to 11.5% of those with T1D



Key messages from NPDA 2021/22

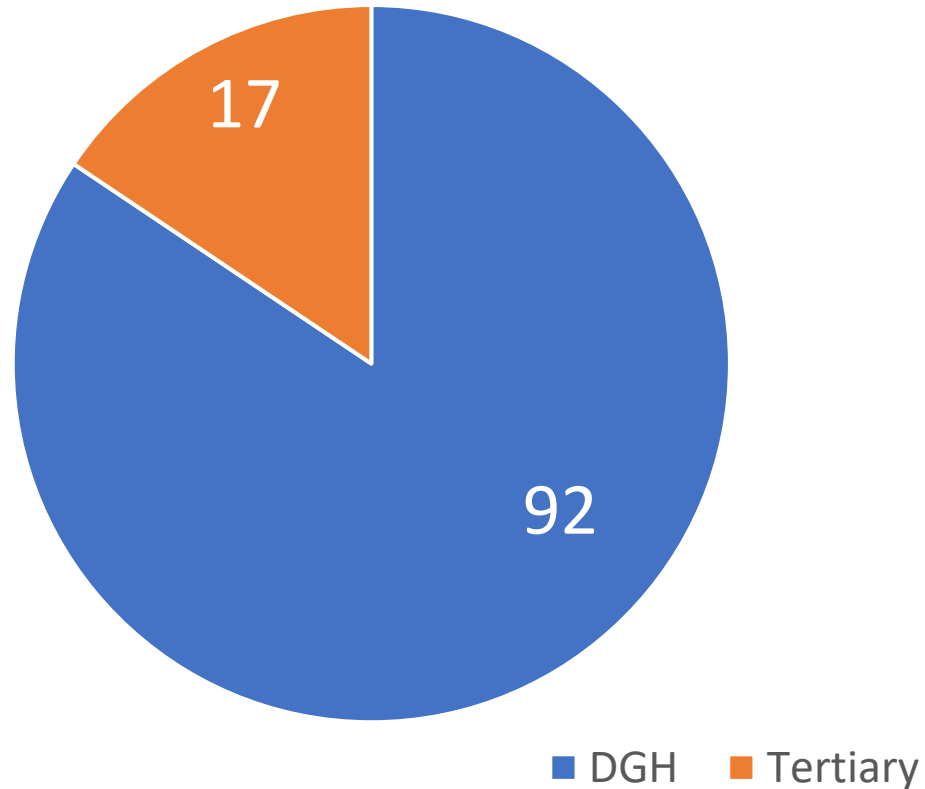
- 281 CYP newly diagnosed with T2DM (230 the previous year)
- Median HBA1C 50mmol/mol (53)
- Almost all (98.2 %) of those with T2DM were overweight or obese
- 8.4 % had an abnormal retinopathy screen (more than doubled)
- Cholesterol > 5 in 1/3rd

Survey

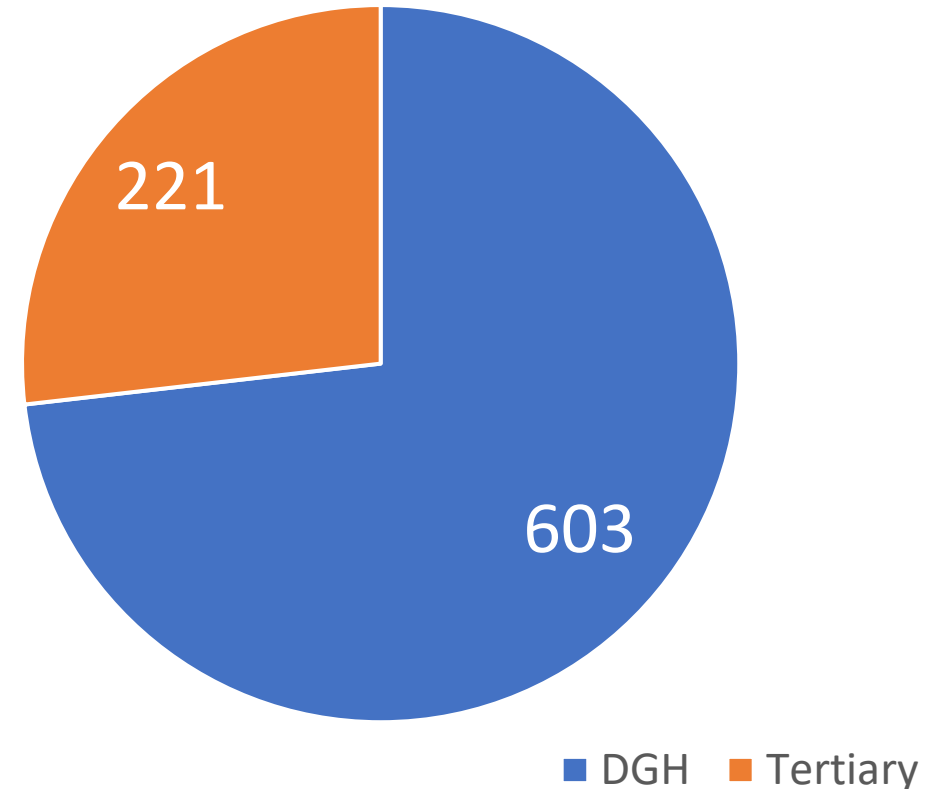
- Period: December 2022-February 2023
- E-mail sent through NCYPDN Network Managers and T2 National Working Group
- 109 responses received

Overall responses by hospital type (Four nations)

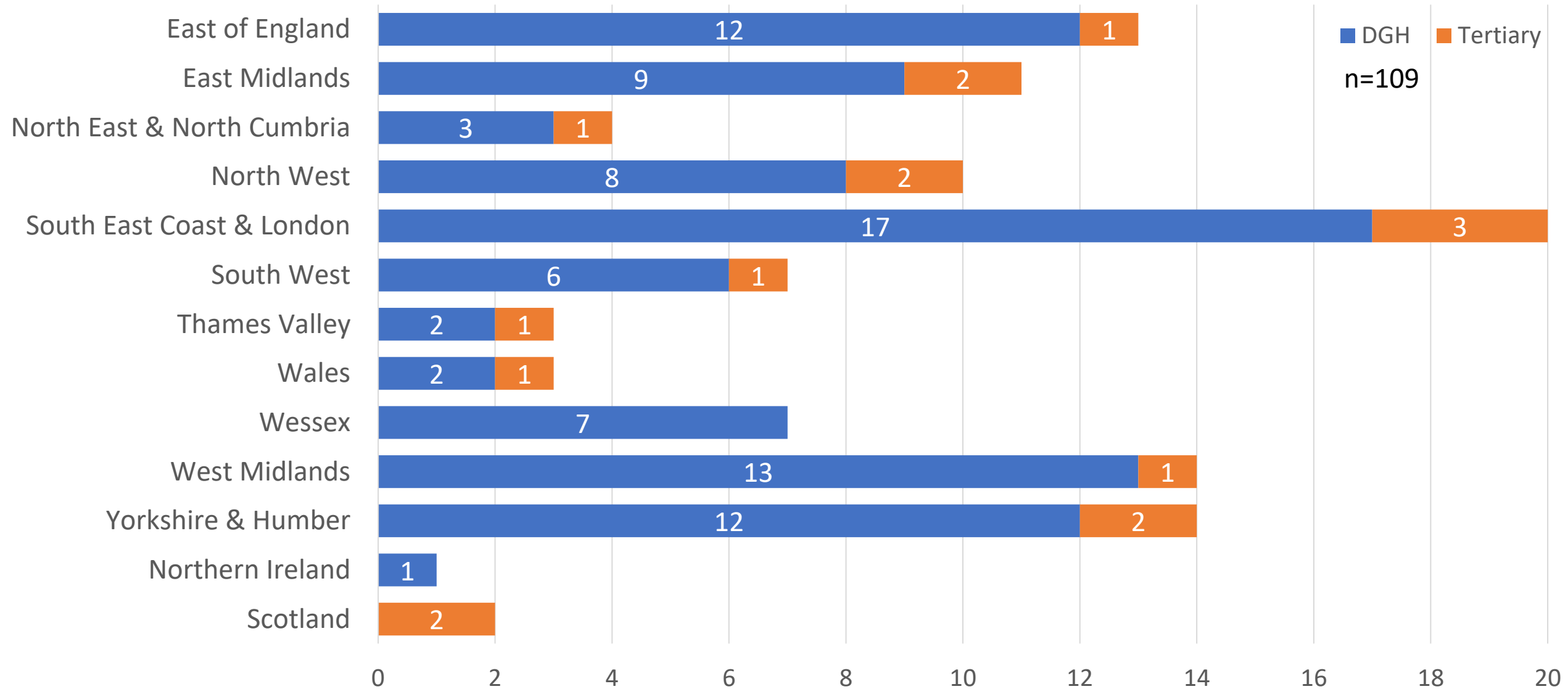
Unit responses (n=109)



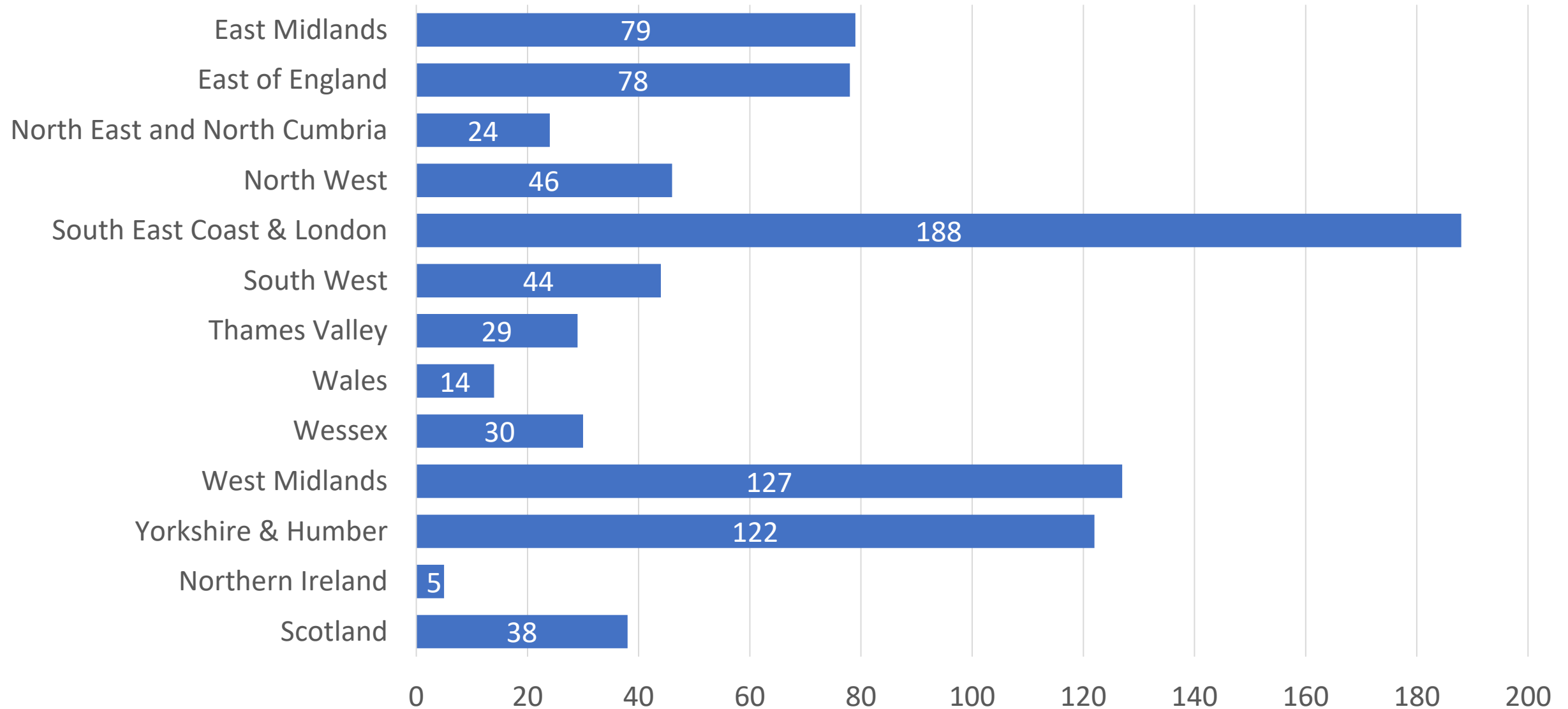
Patient distribution



Unit responses by Network / Region

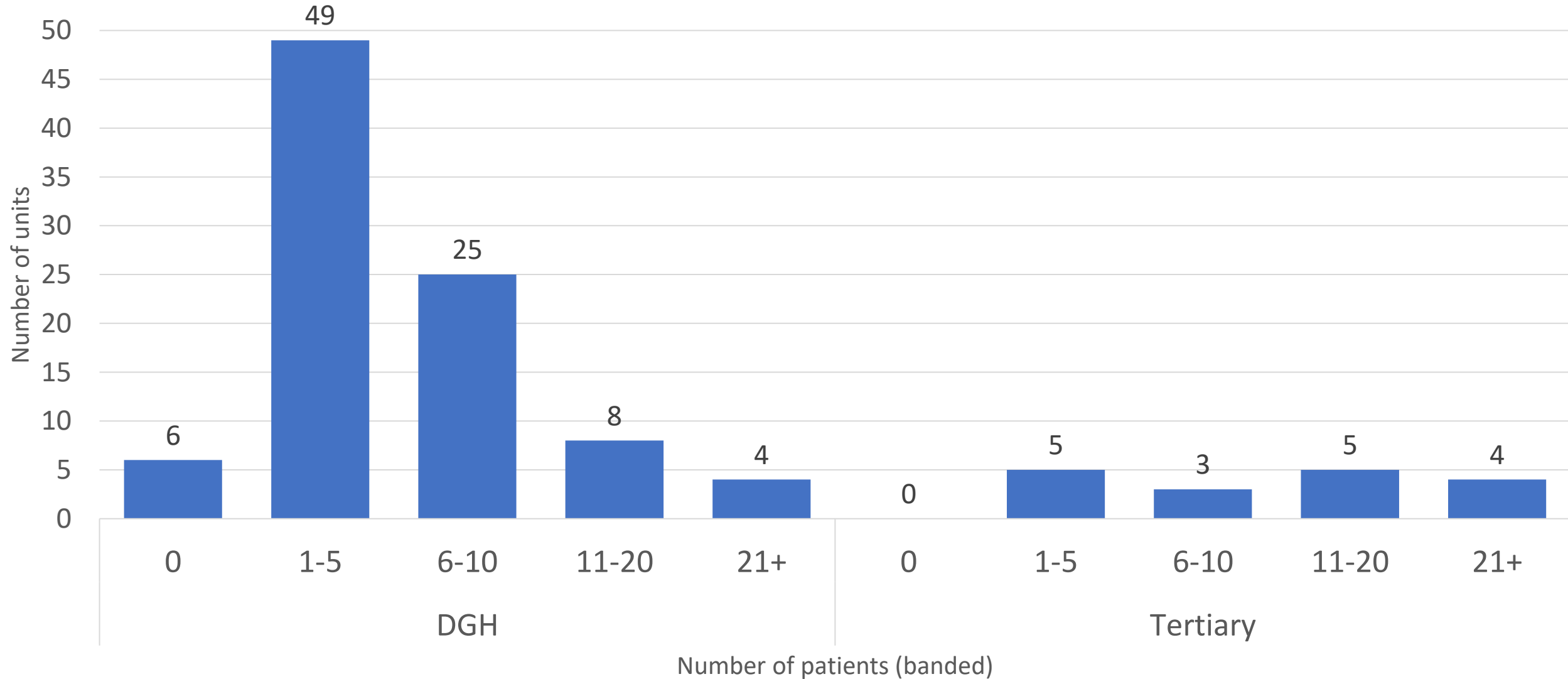


Patient numbers by Network / Region

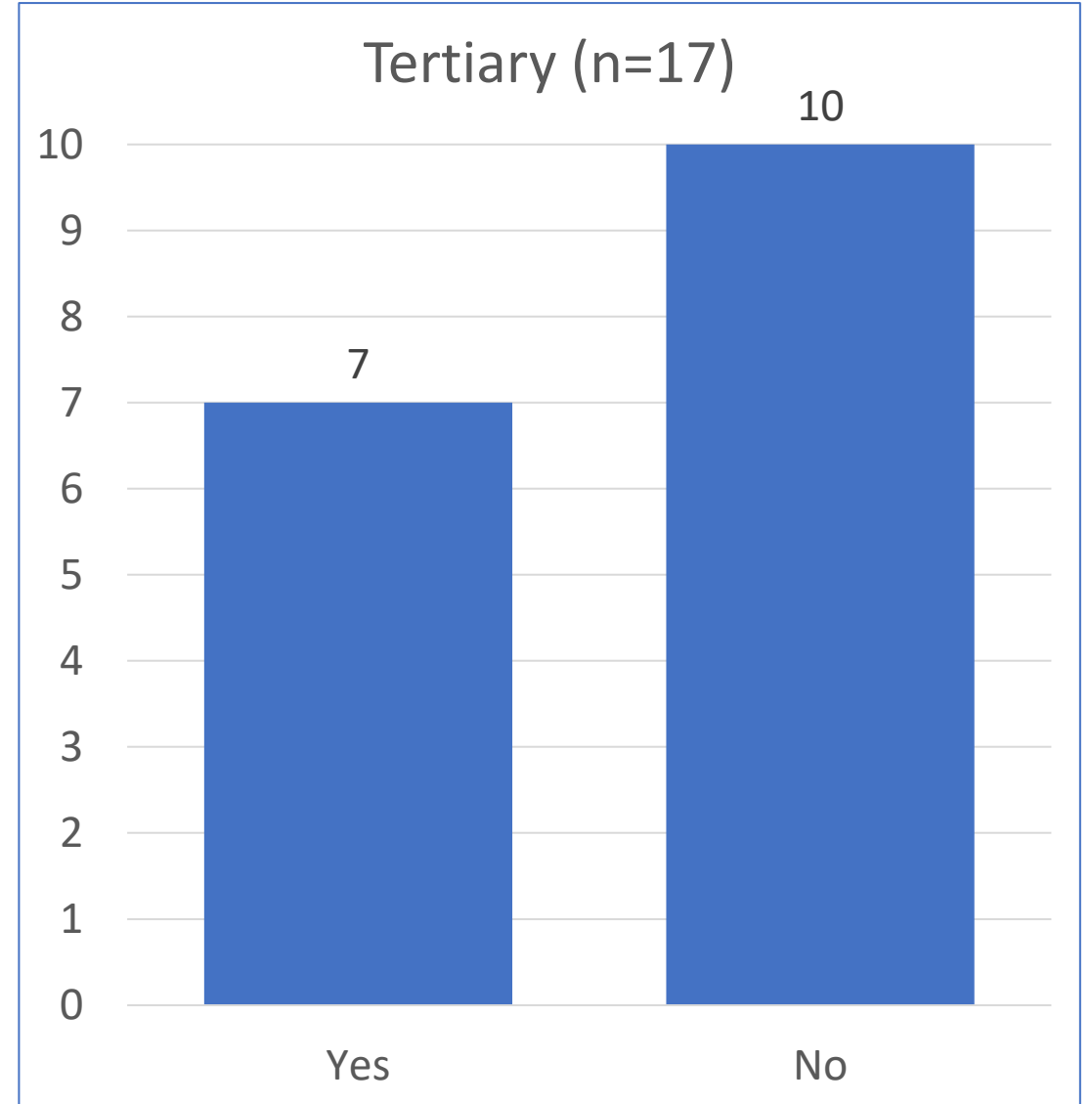
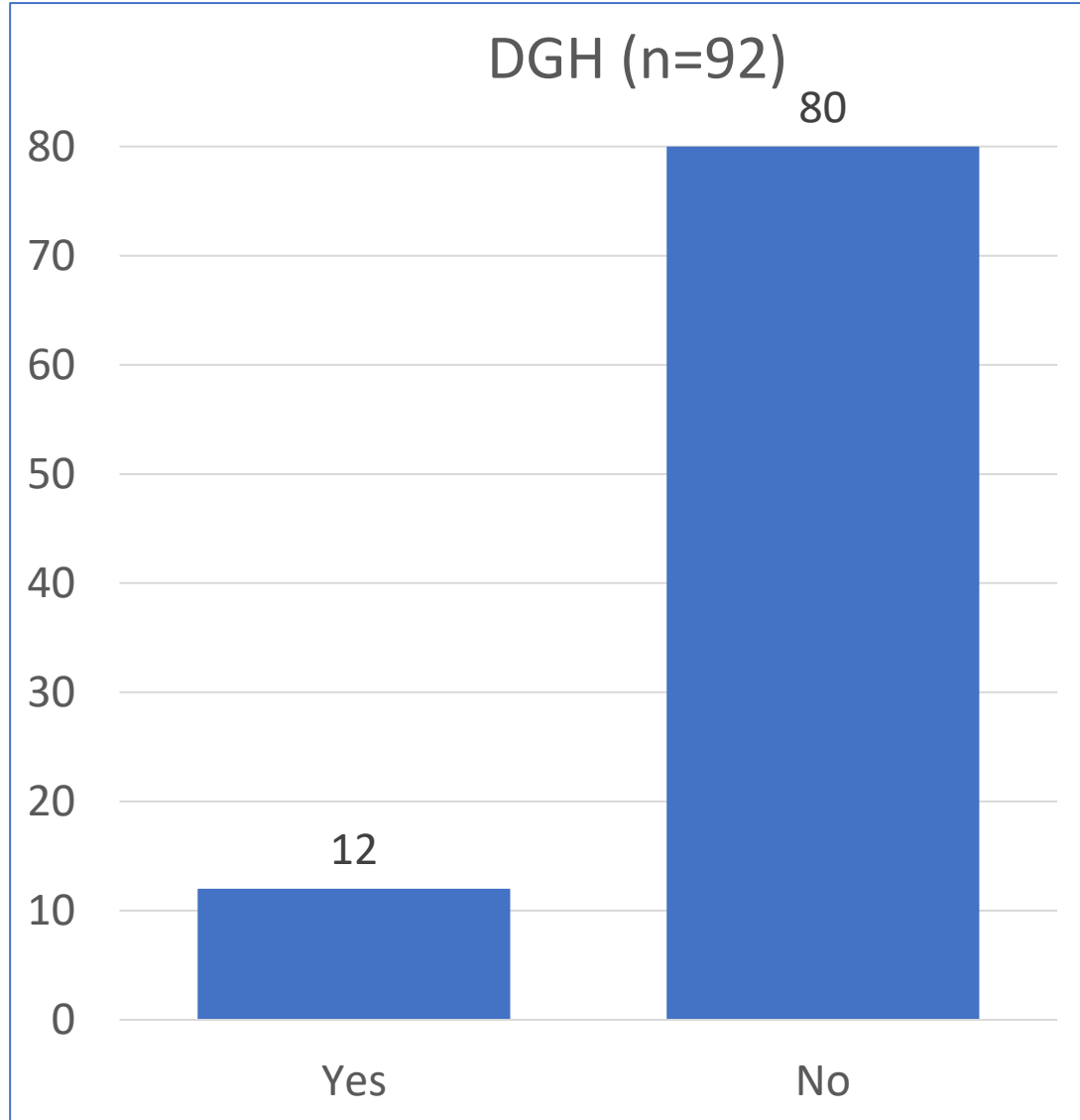


Where are CYP cared for – hospital type?

Unit responses for number of patients (banded) and hospital type, n=109

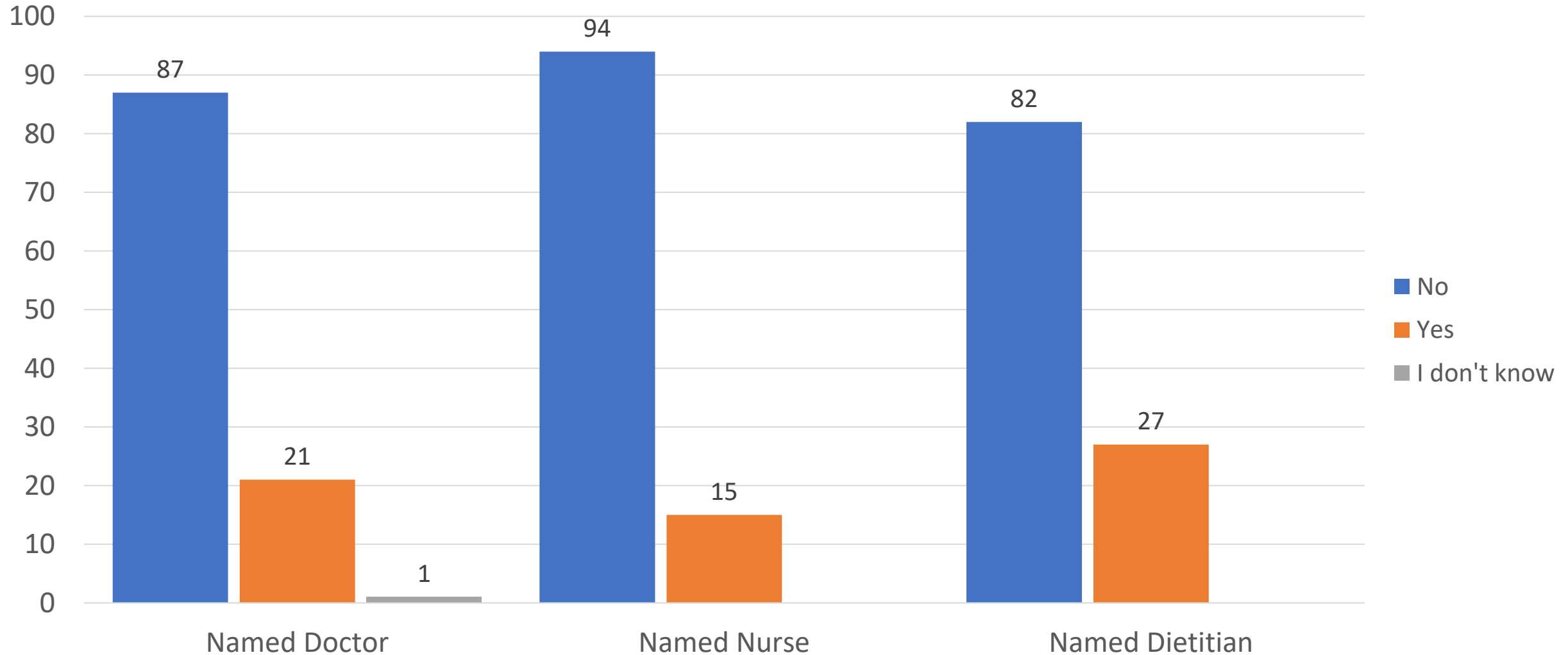


Do you have a dedicated T2 diabetes clinic?



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Named discipline lead with special interest in T2 , n=109



WNB/DNA policy for T2 diabetes

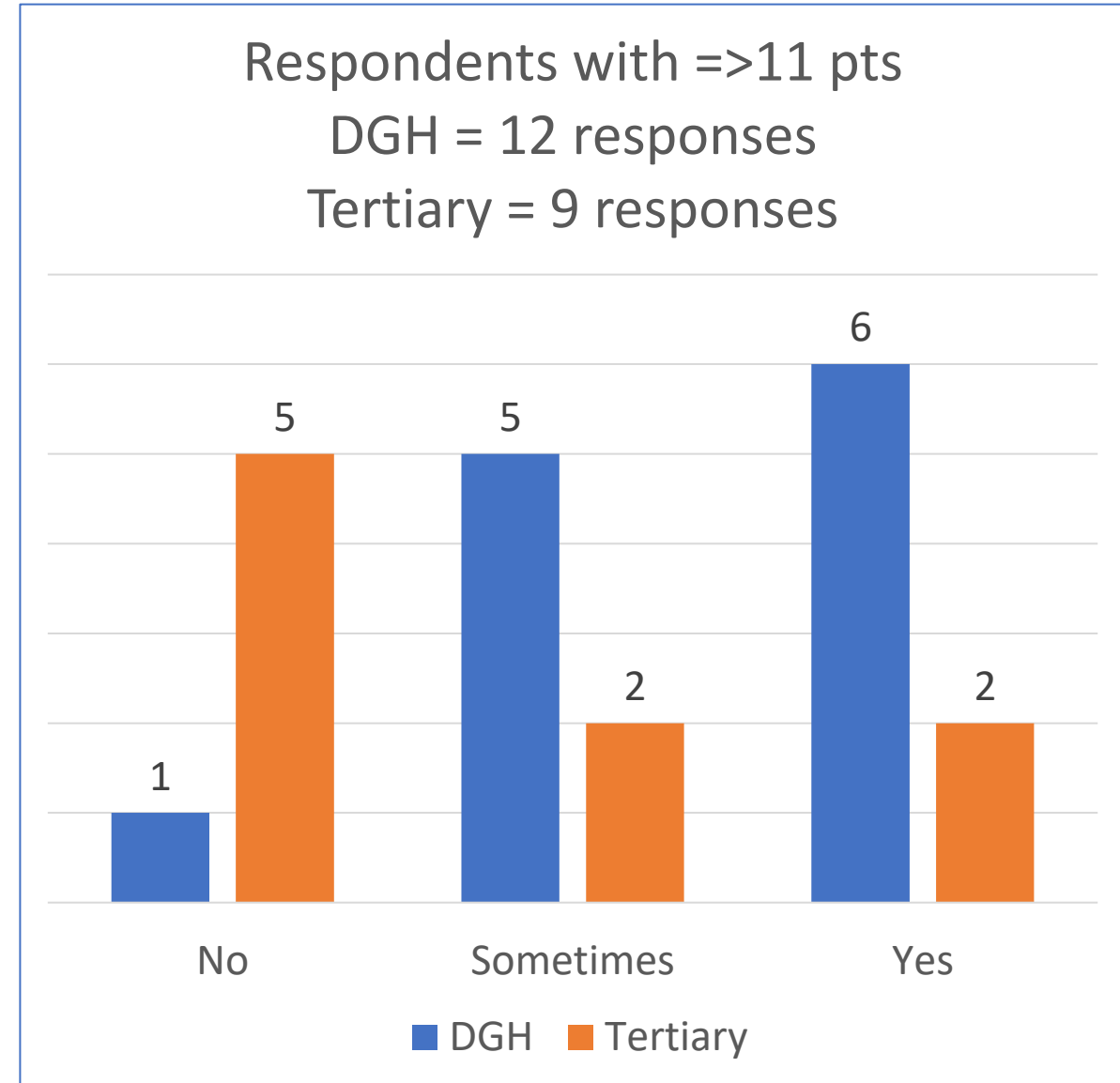
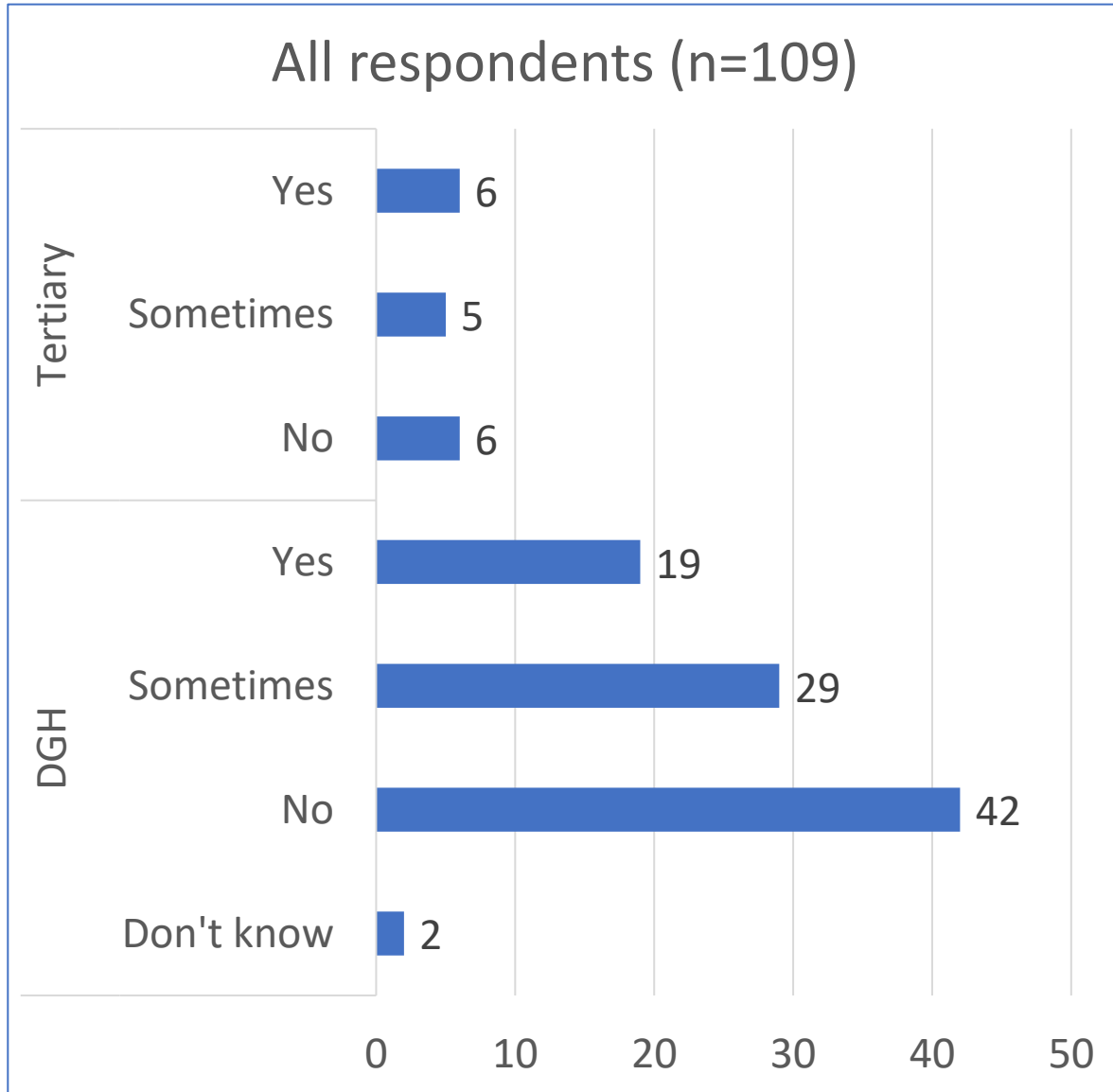
Question: What is your WNB/DNA policy for children and young people with type 2 diabetes? Is this different from those with type 1 and is it dependent on age?

- 92.6 % policy is similar
- However, in practice more likely to discharge older young people
- A third of 16-18 year olds are managed in primary care

Cost of living and the impact on health

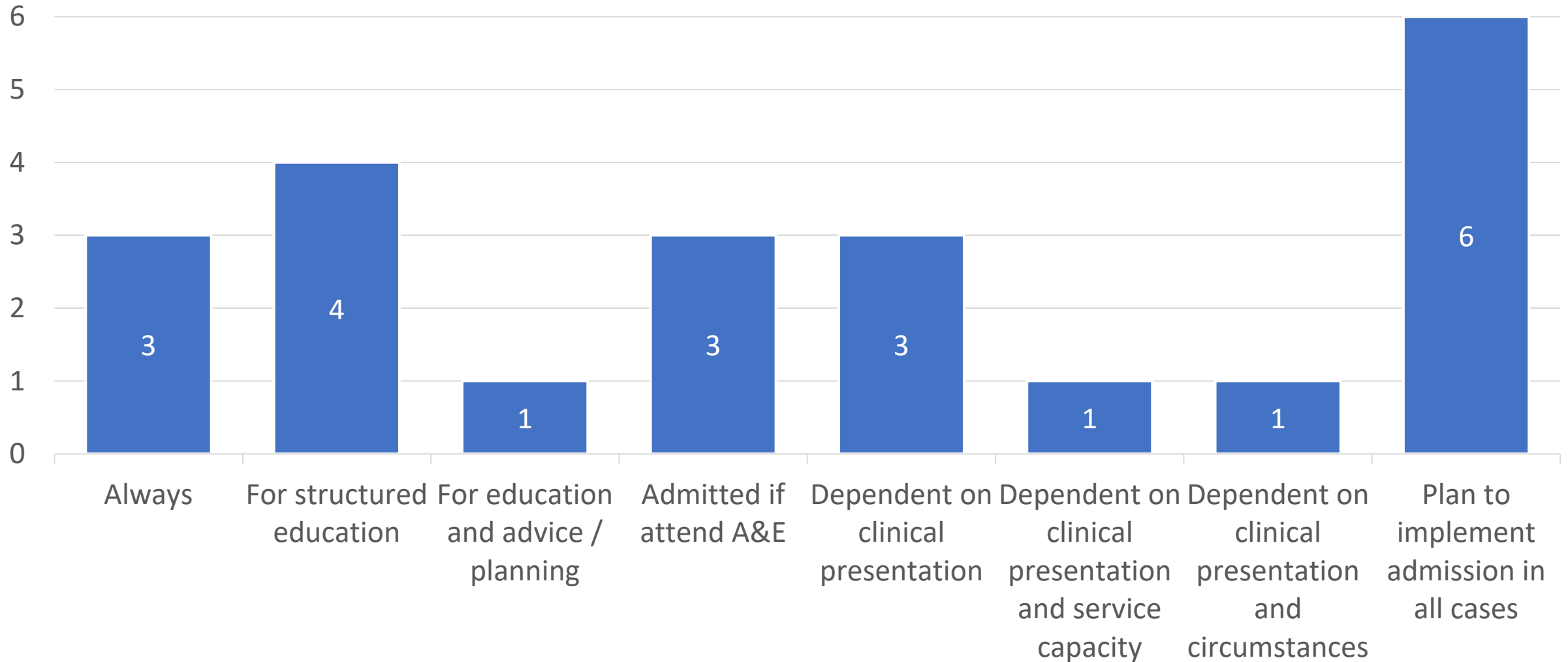
- According to the RCPCH, the average cost of attending a clinic appointment is £35. Families report missing paediatric appointments because of the financial costs of attending due to travel, parking, food, childcare costs and potential loss of earnings, reported to be an average of £50
- Children living in poverty are more likely to have poorer health outcomes including low birth weight, poor physical health, and mental health problems
- The health impacts of growing up in poverty are significant and follow children across their life
- Children living in poverty are significantly more likely to suffer from acute and long term illness. They are significantly more likely to require hospital admission and 72% more likely than other children to be diagnosed with a long-term illness

Admission at diagnosis (where no ambiguity)

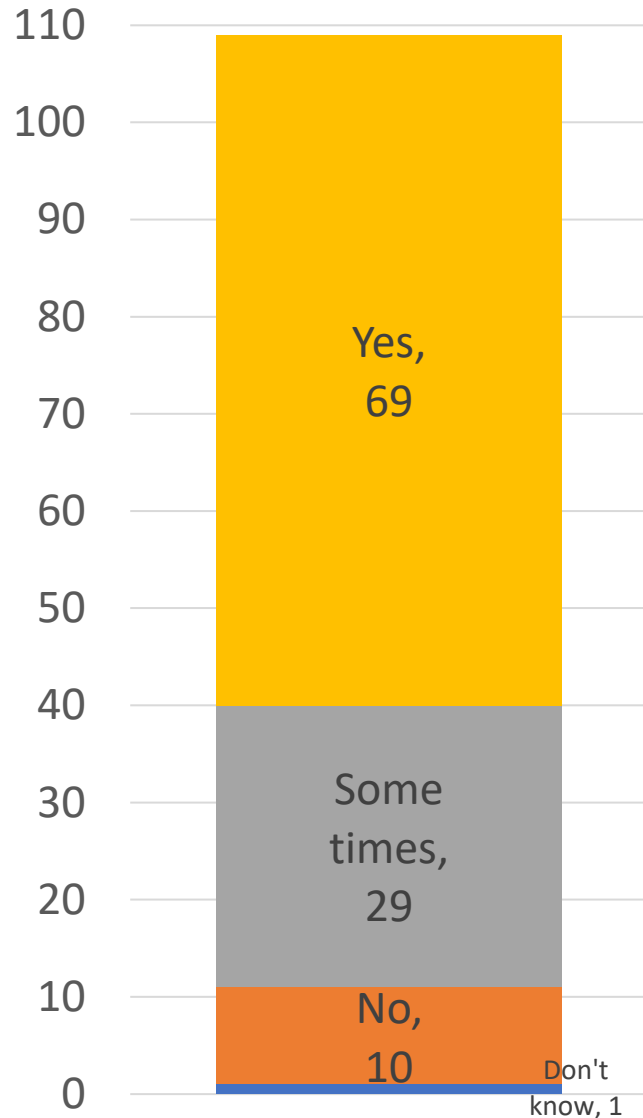


Admission at diagnosis – qualitative findings

Summary of free-text themes (n=22)



Do you recommend routine BG checks if not on insulin?



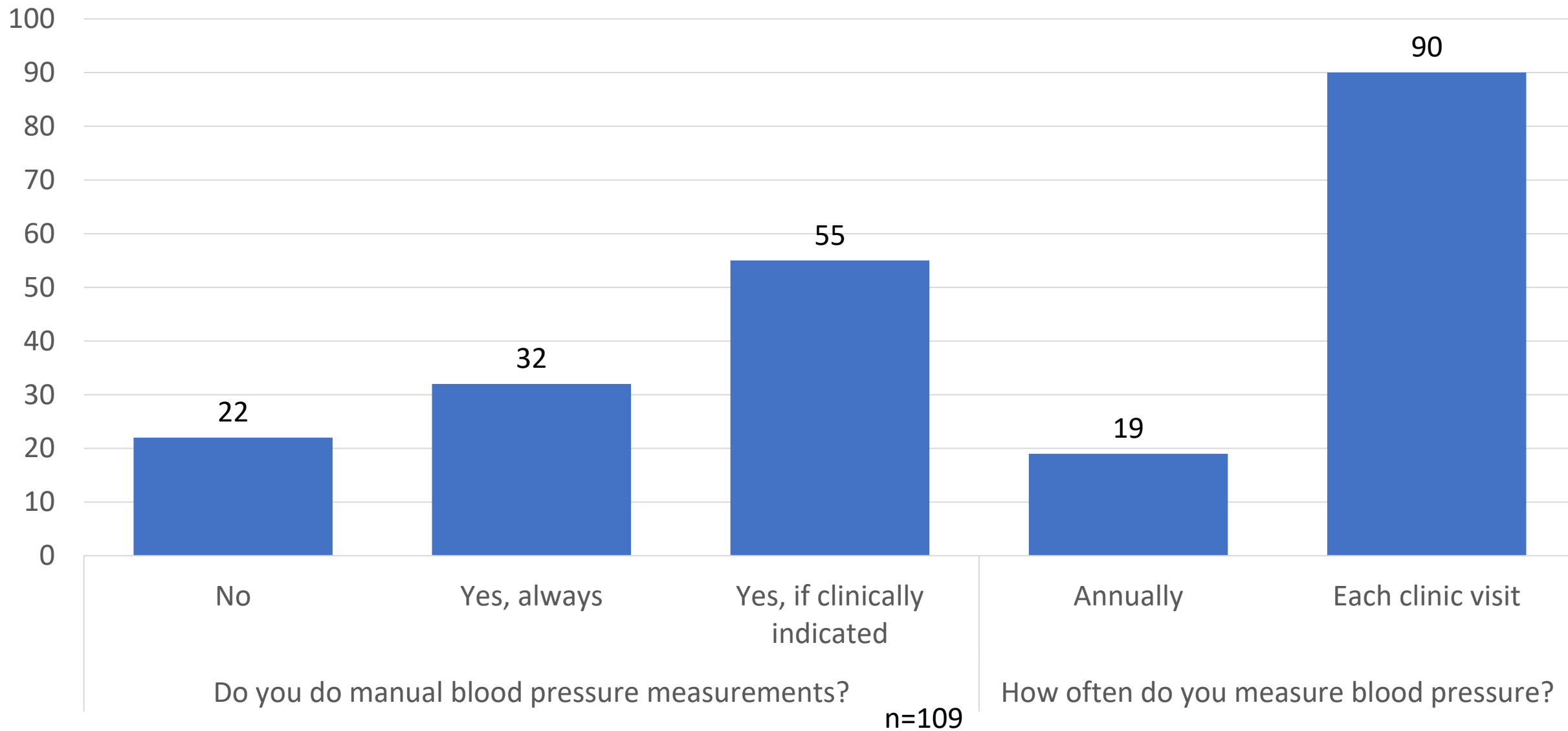
Additional free-text responses showed that the majority (17) recommended 1-2 tests per day; 12 recommended 2-4 tests per week and 13 did not specify frequency.

Several responses indicated the frequency depended on time since diagnosis and if the patient was unwell.

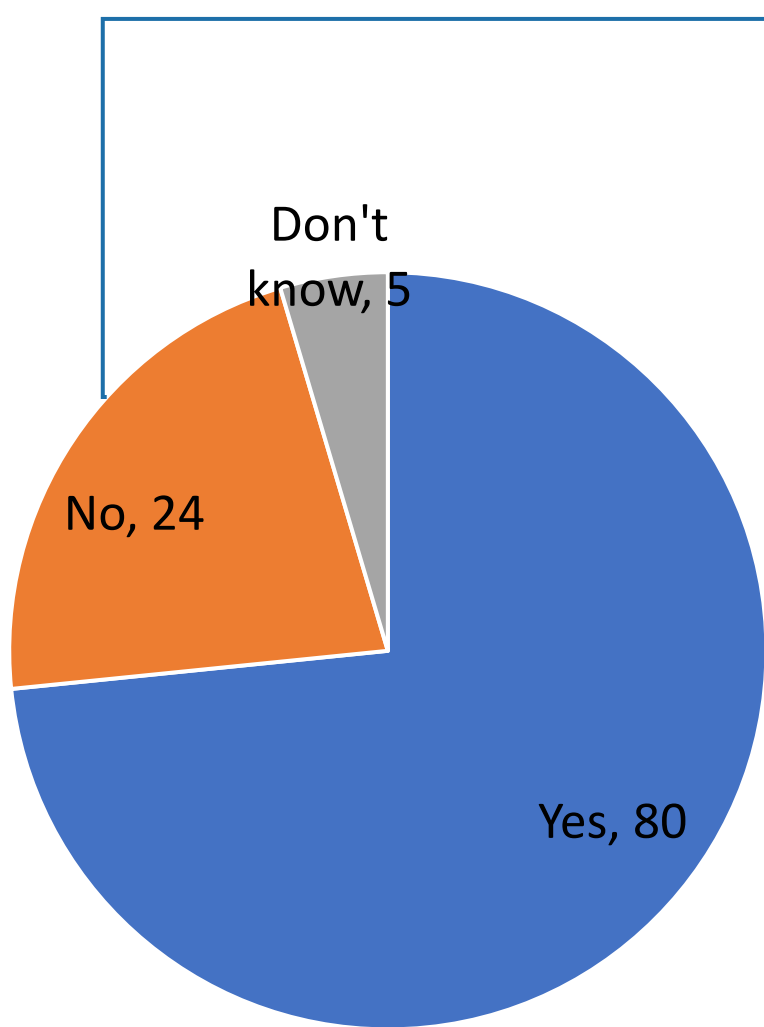
Four stated in line with ACDC.

Nine referenced recommending glucose monitoring.

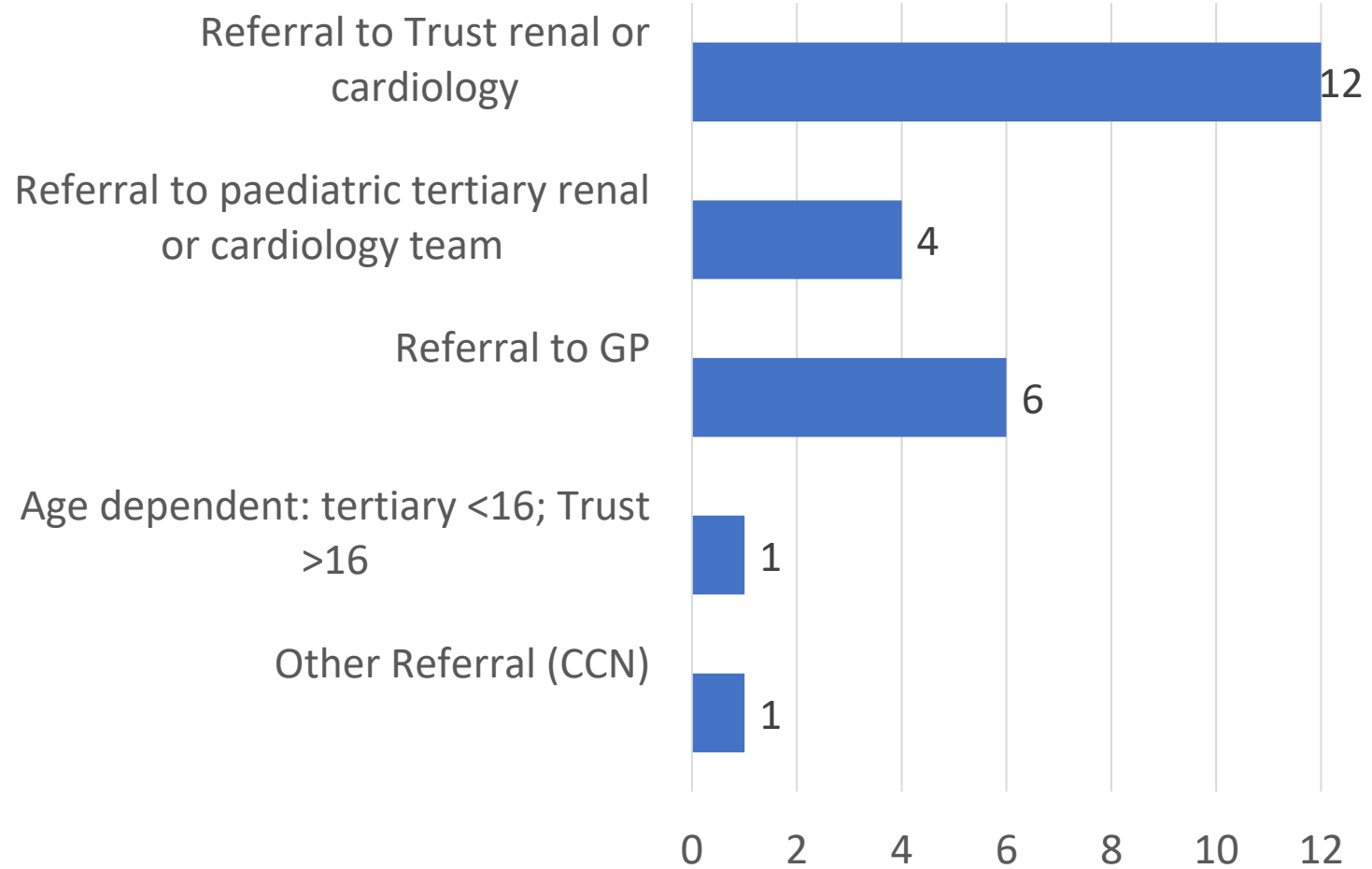
Manual blood pressure measurements



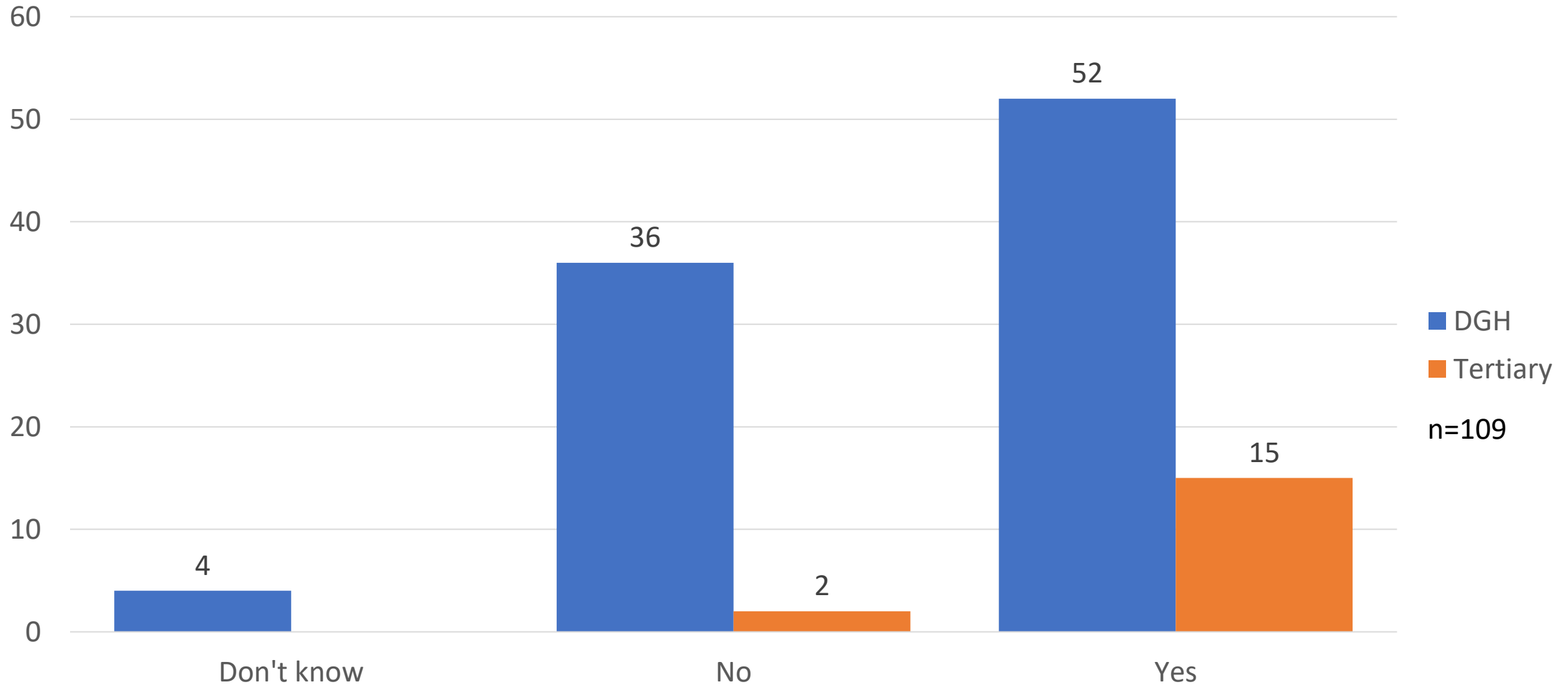
MDT able to initiate 24hr ambulatory BP monitoring?



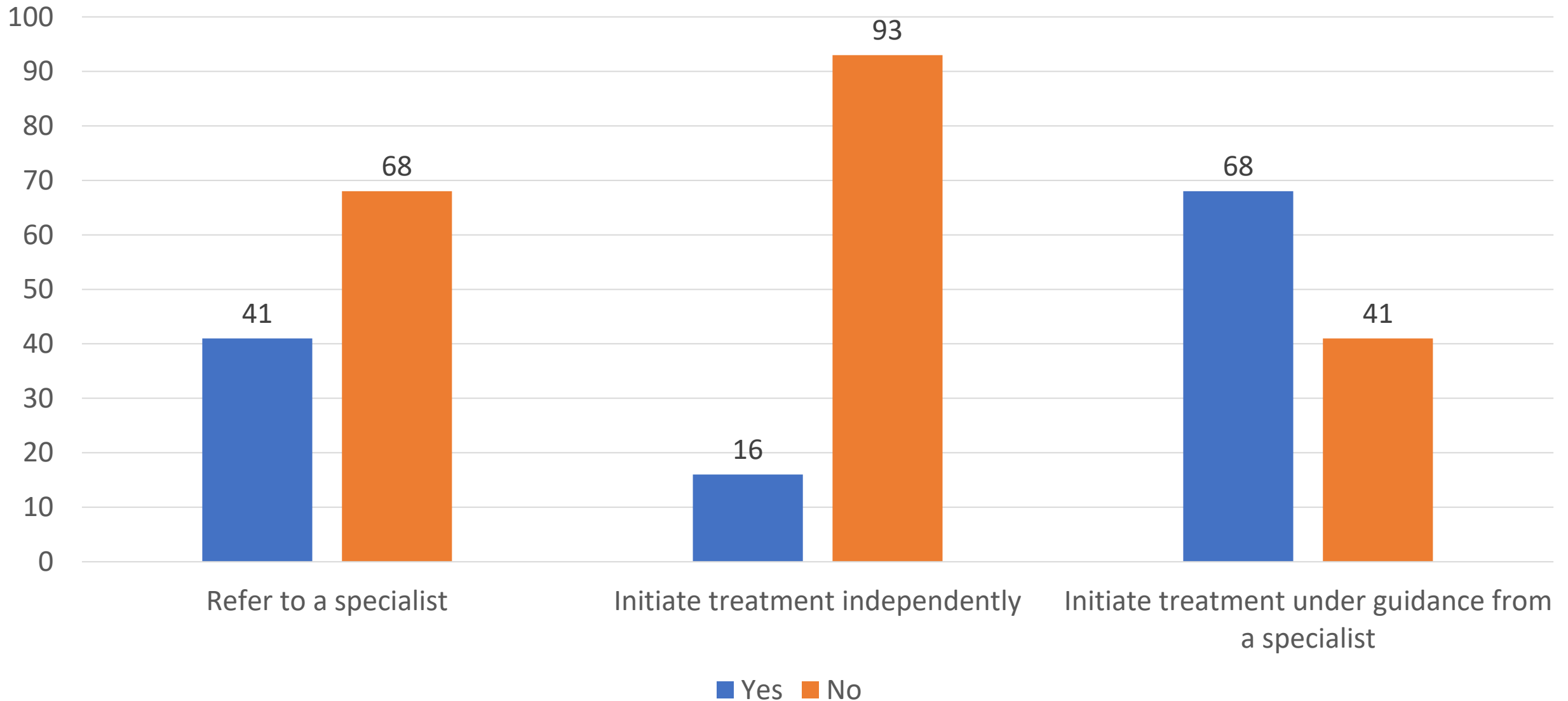
Breakdown of 'No' responses (n=24)



Pathway for tertiary hypertension or renal referral



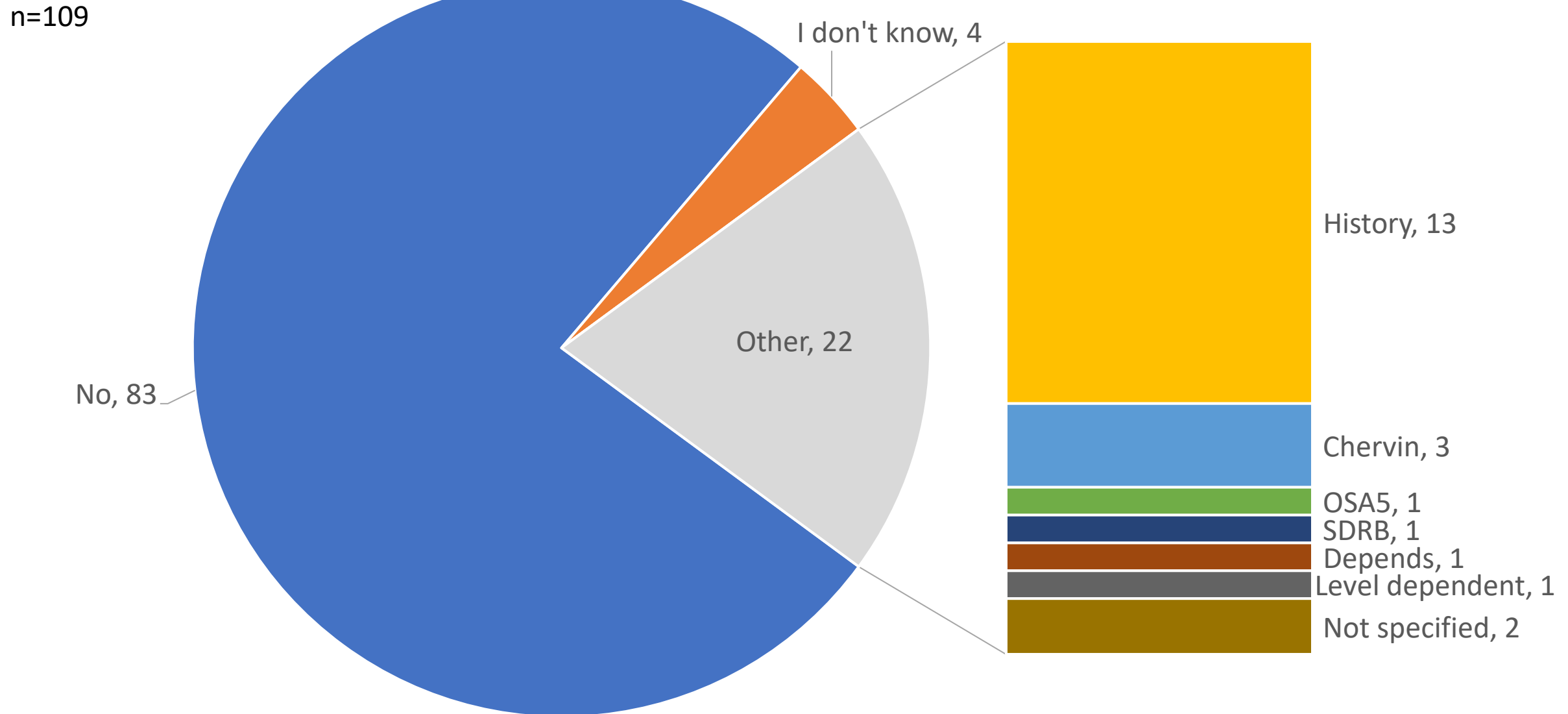
Steps following a diagnosis of hypertension



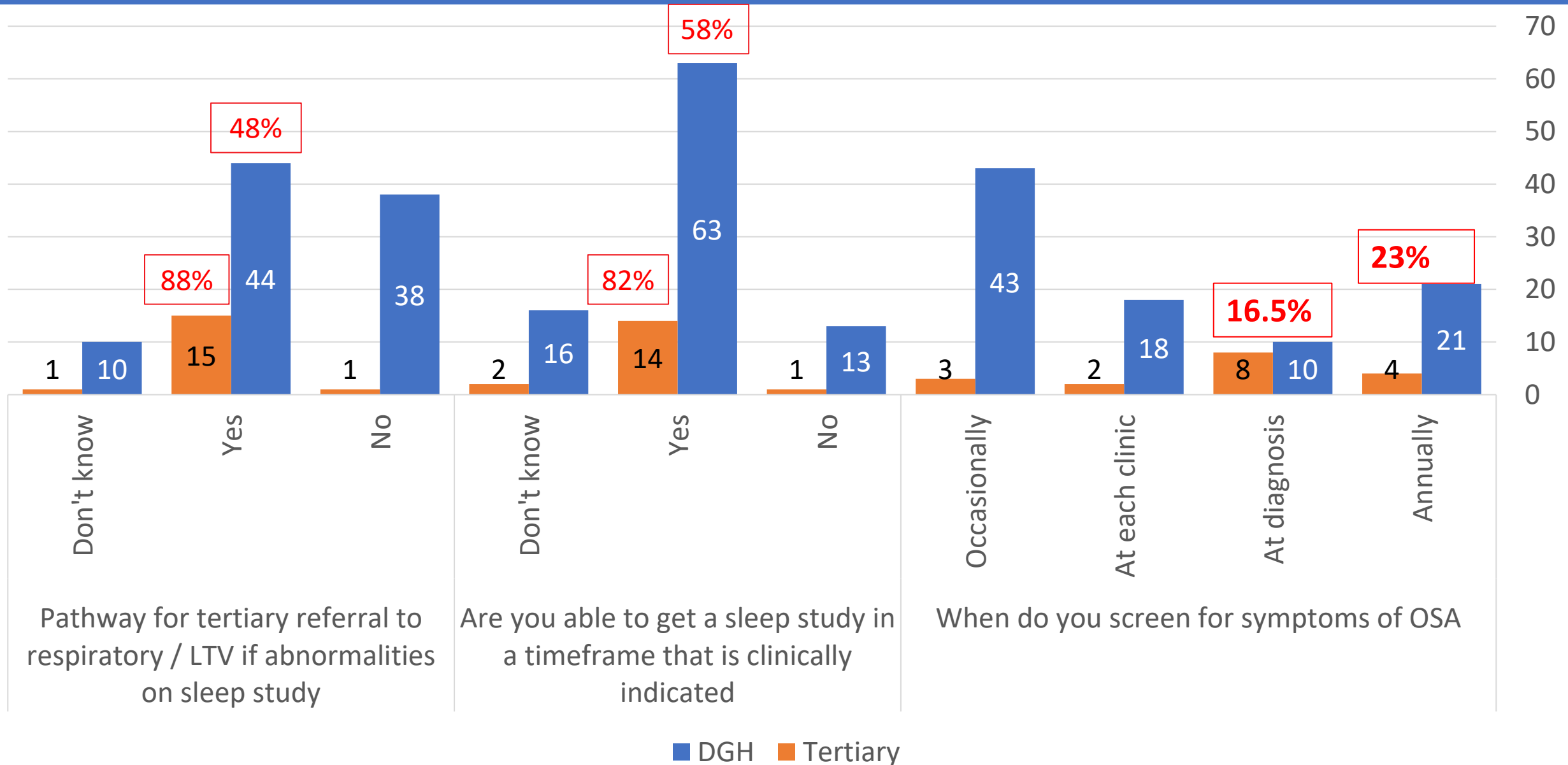
First line treatment for hypertension

No	66	ACE inhibitor (Unspecified)	11
Don't know	1	ACE inhibitor - specific one dependent on personal characteristics	3
Seek advice from specialist	8	Amlodipine	4
Lifestyle modification	1	Calcium channel blockers	1
Refer to national guidance	1	Enalapril	5
Would not initiate	1	Lisinopril	4
		Losartan	1
		Ramipril	2

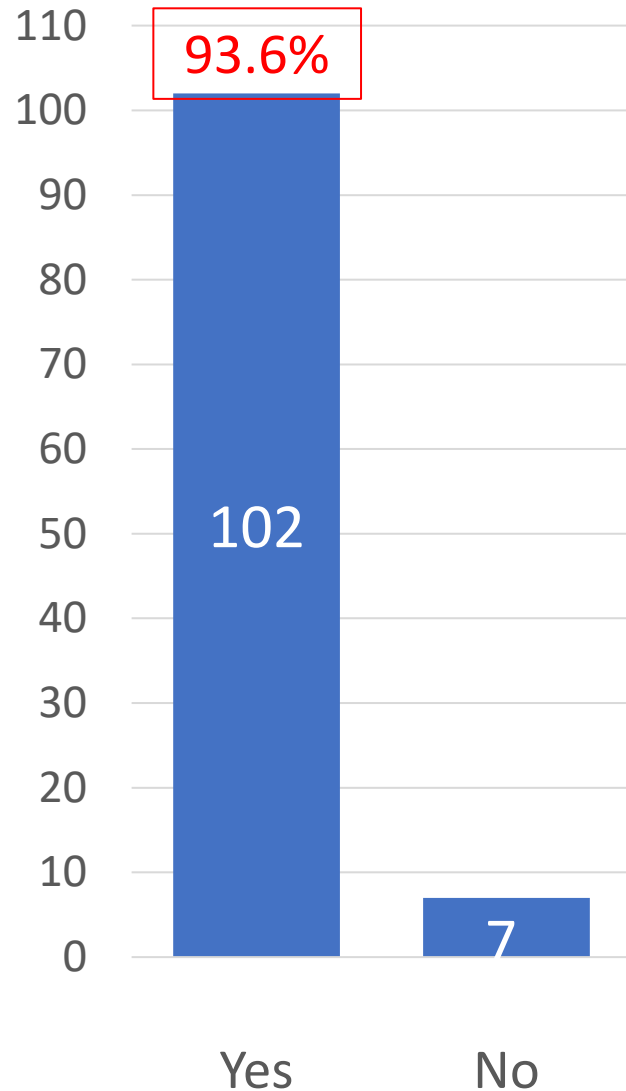
Screening tool used for diagnosis of Obstructive Sleep Apnoea



Sleep Apnoea screening and referral



Dyslipidaemia screening at diagnosis

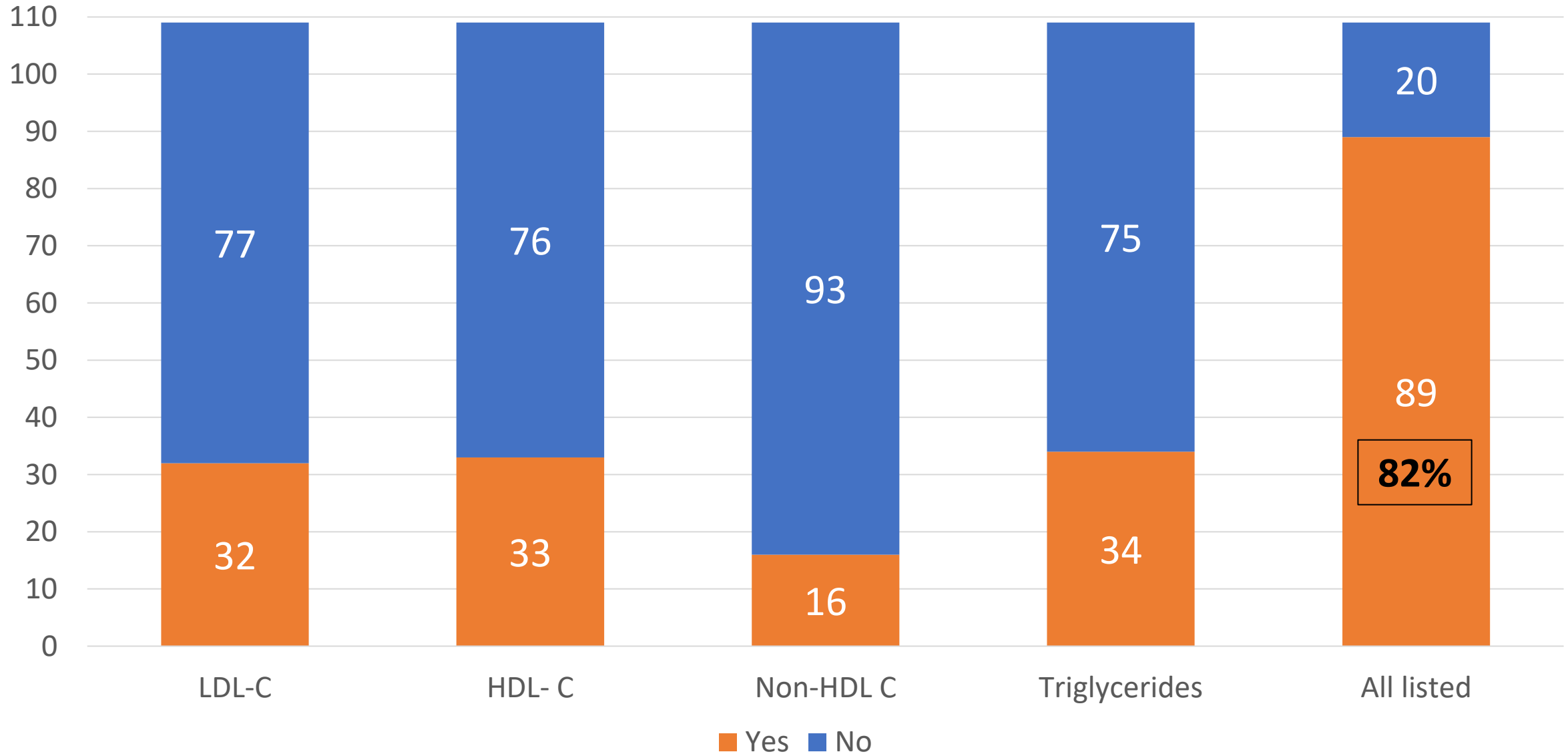


Most respondents reported that screening is conducted at diagnosis, then annually.

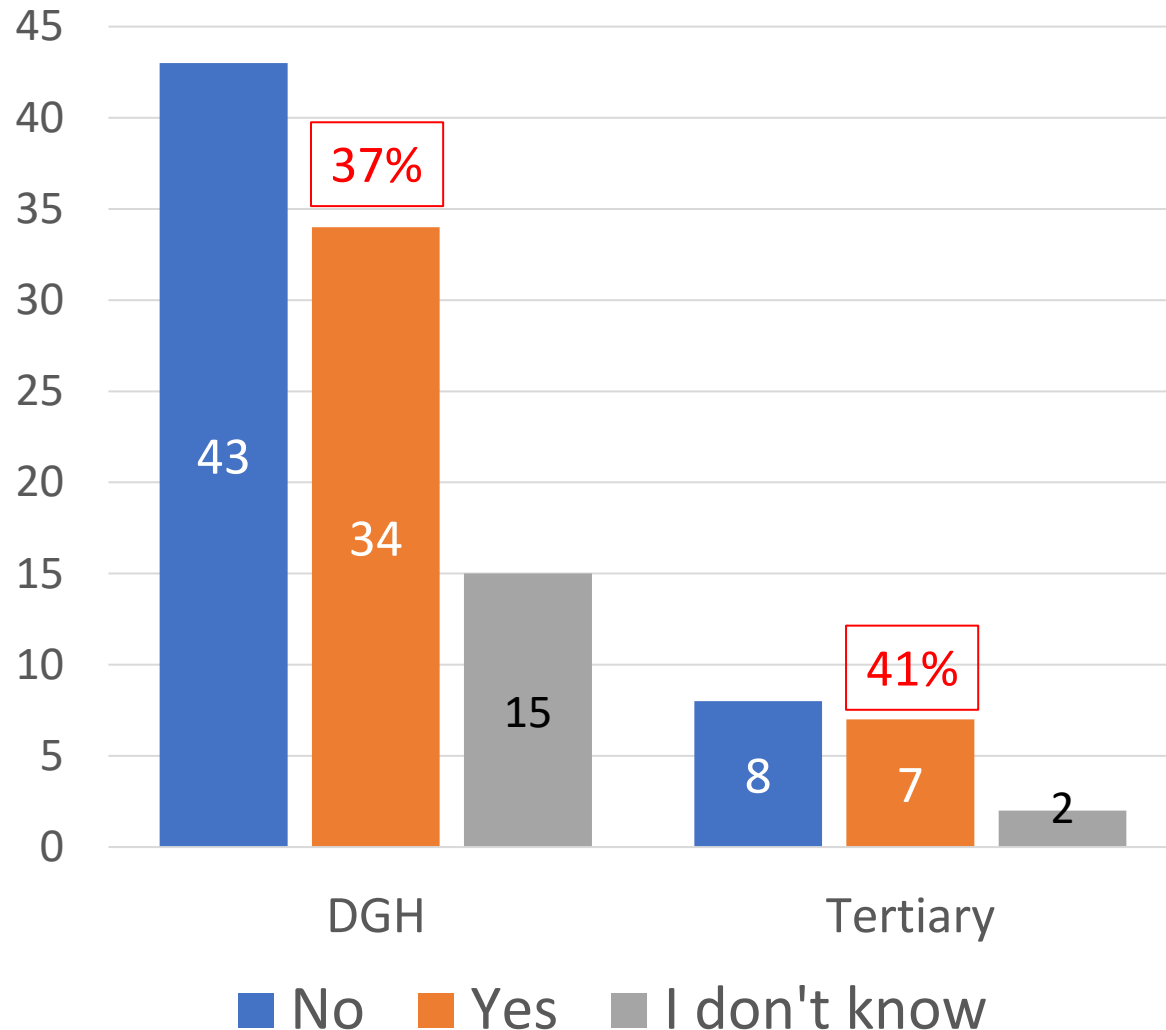
A small number of respondents clarified that screening took place after three months / at first clinic or when metabolic control was attained and annually thereafter.

Within both of the above, more frequent screening was carried out where results were abnormal.

What components of lipid profile were checked?



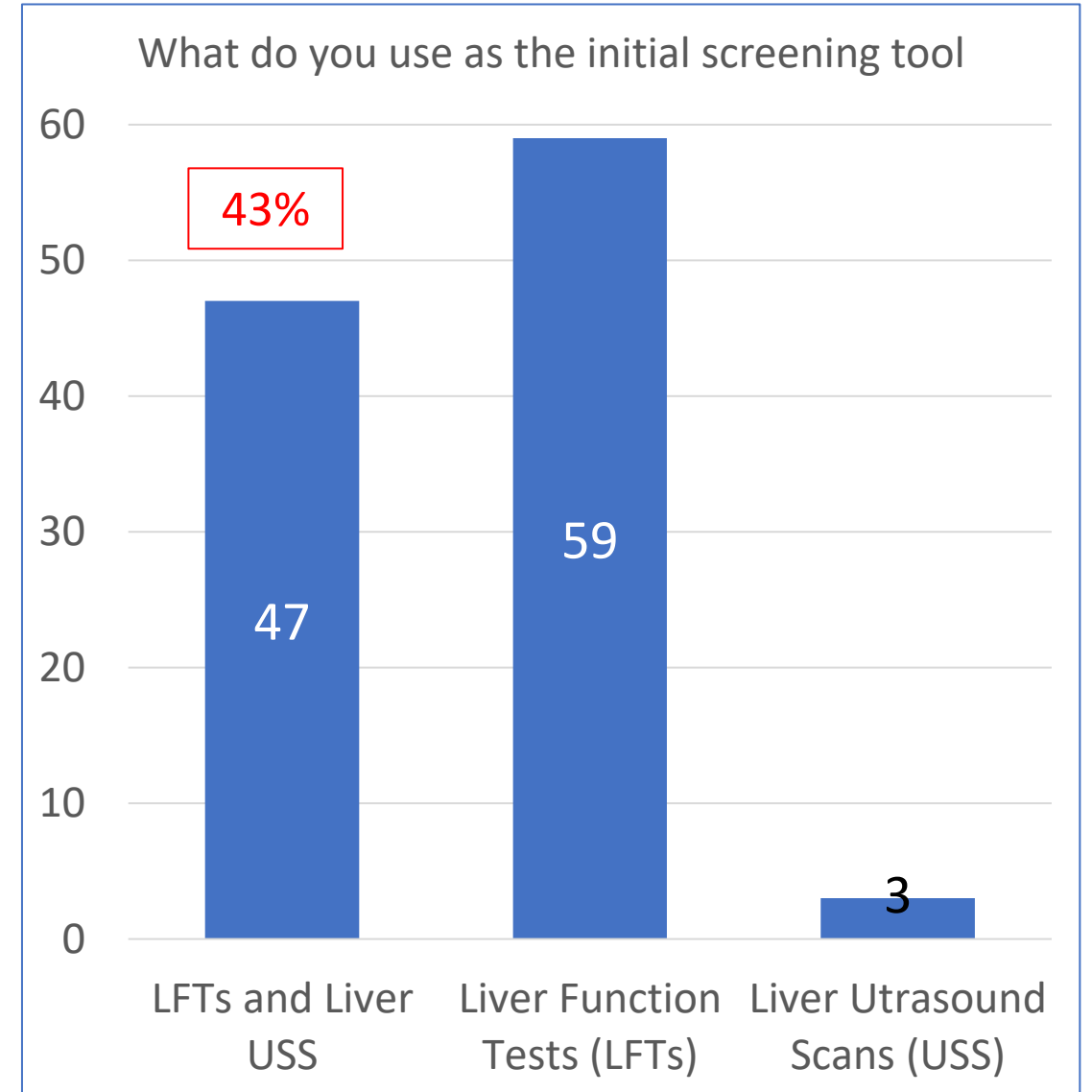
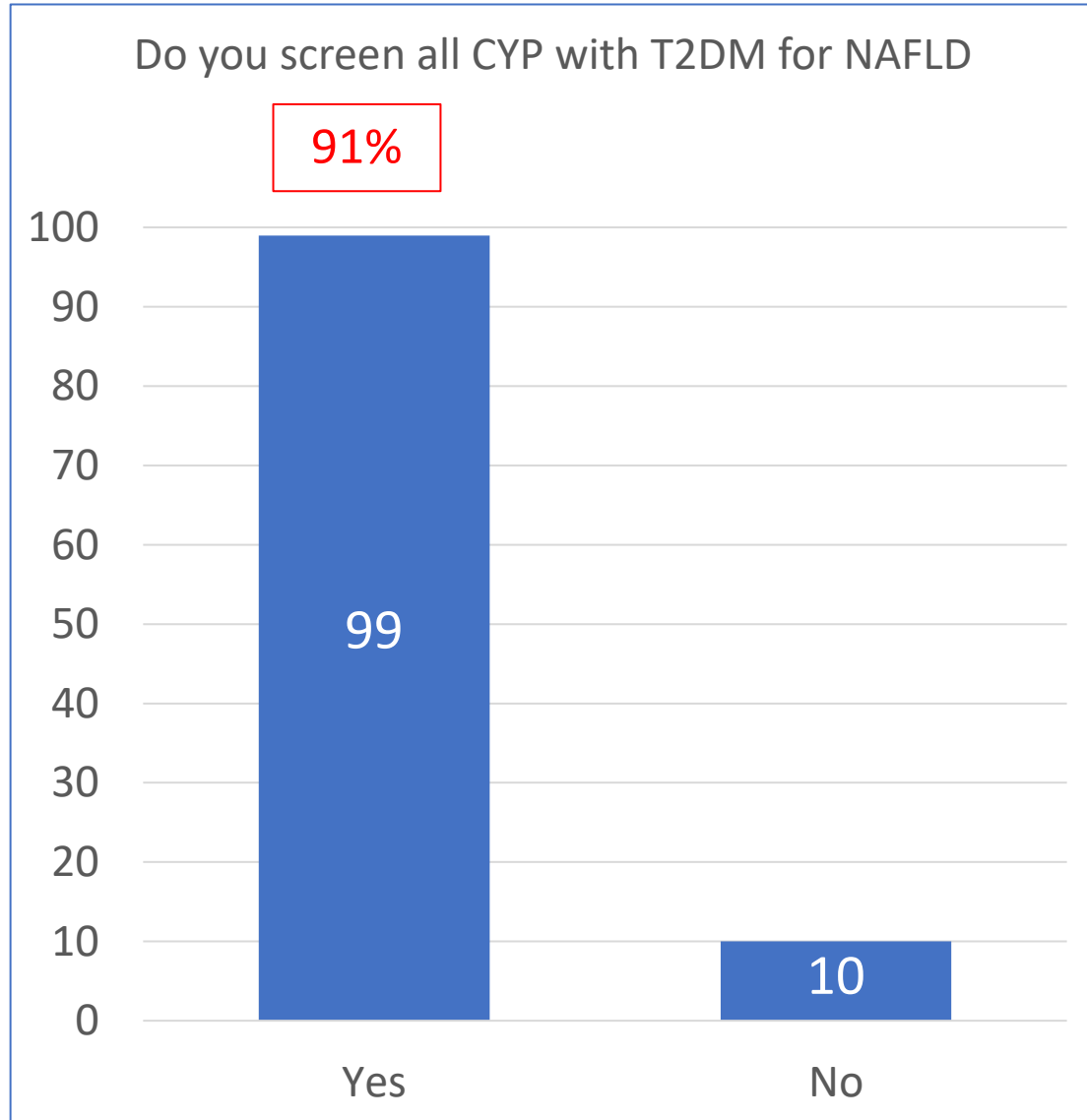
Guidelines on when to treat dyslipidaemia



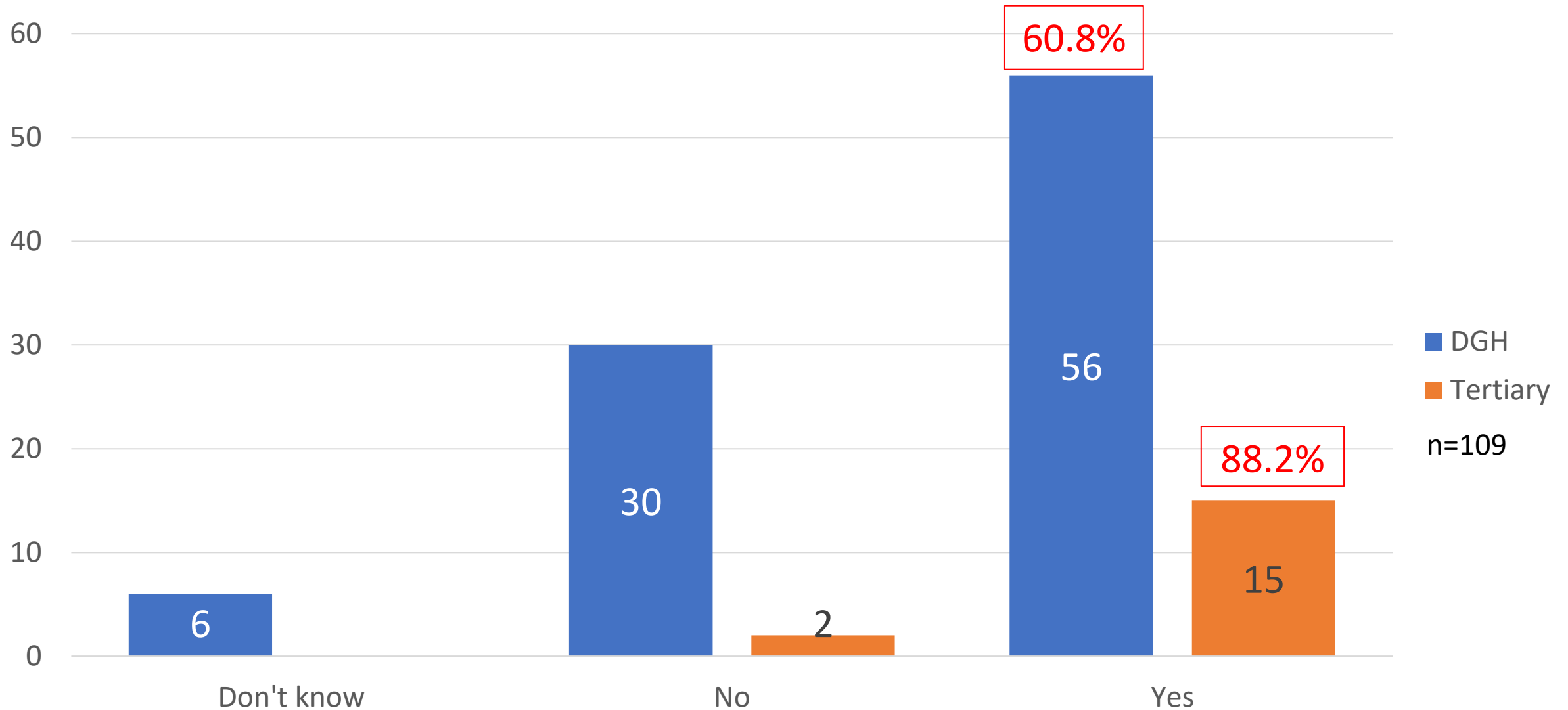
Additional free-text comments for specifications on which guidelines were used

ACDC	28
Other National/International Guidelines e.g. SPAD/OSCA/ADA/FH (inc. with ACDC)	9
Regional or Network data	2
Metabolic colleagues (Trust or Tertiary)	2
Unspecified / unsure	2
Biochemist	5
Developing own	2

Screening for Non-Alcoholic Fatty Liver Disease



Referral pathway to a tertiary liver specialist team

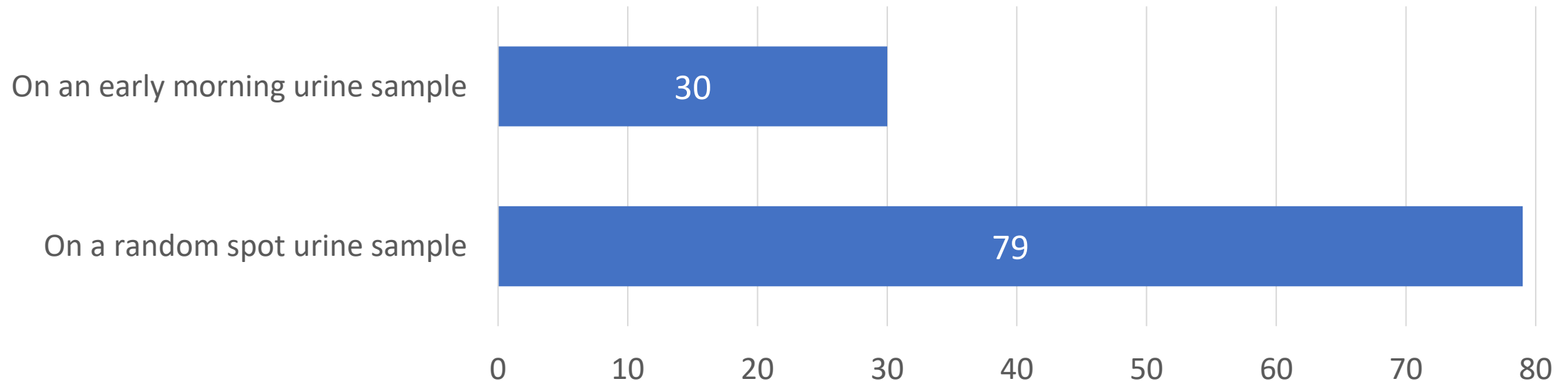


Urinary Albumin to Creatinine ratio – measurement

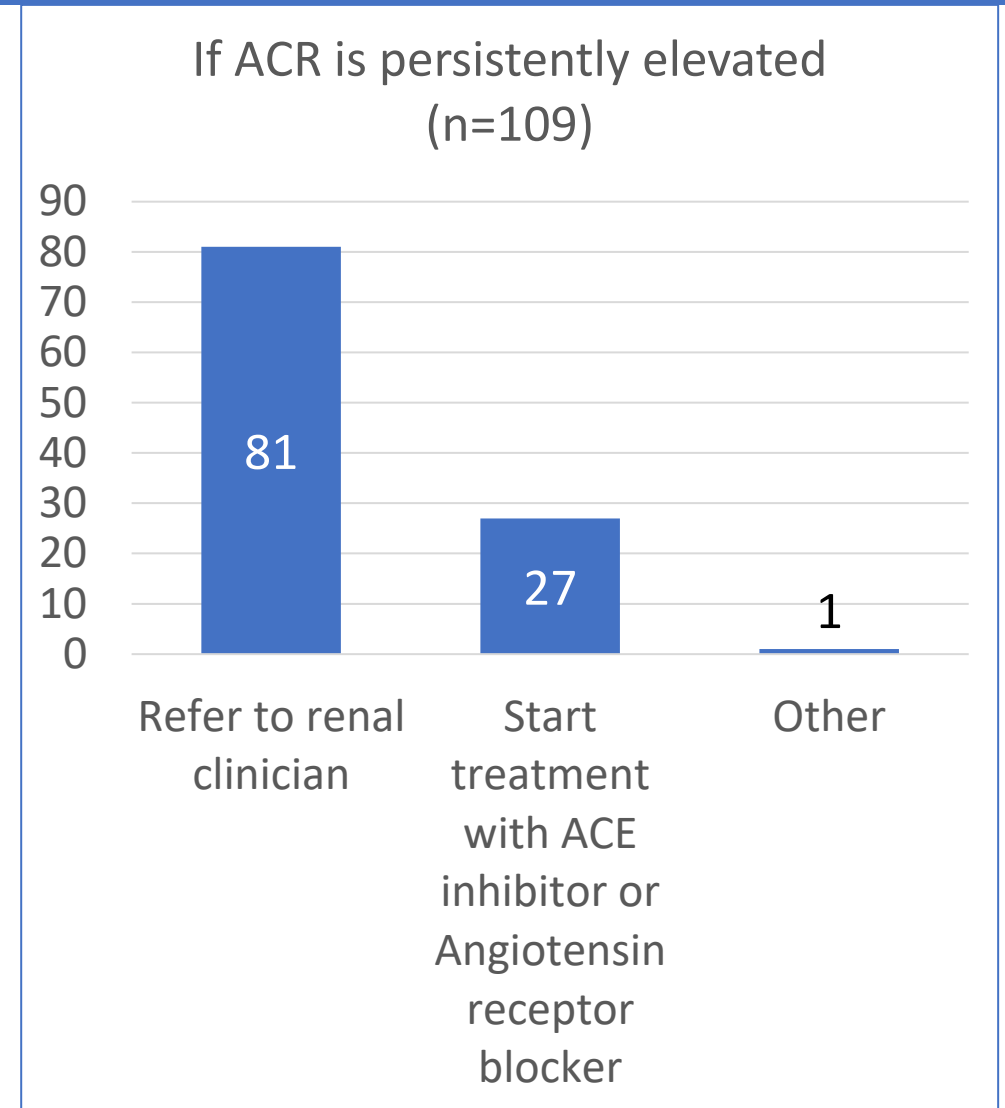
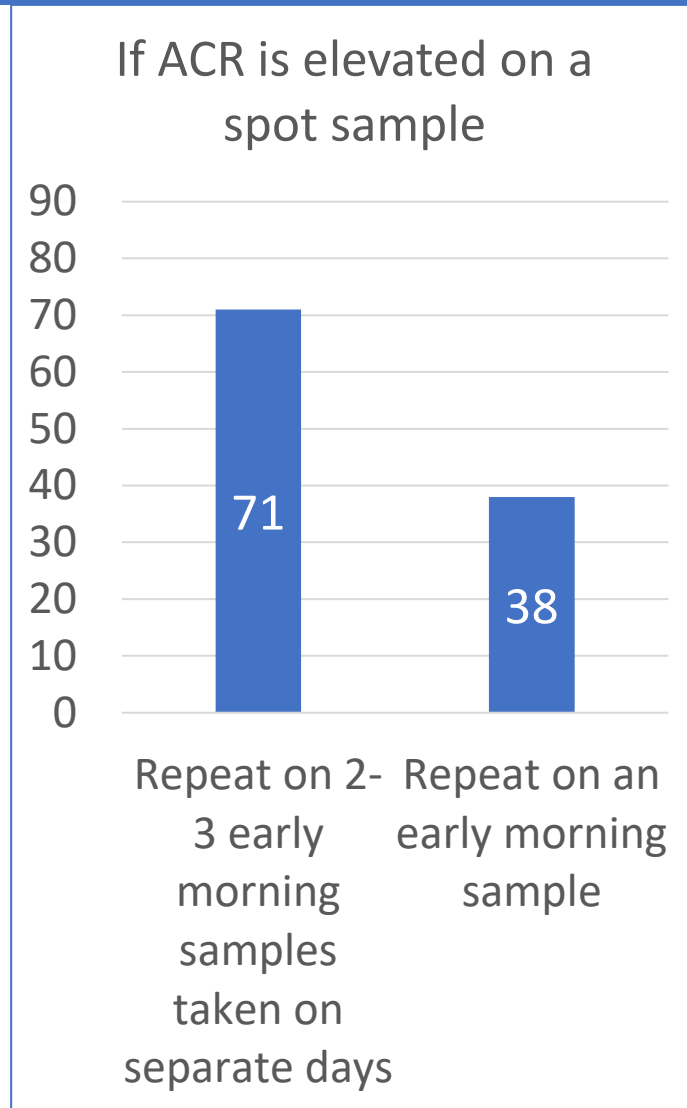
Frequency:

108 responses stated urinary albumin to creatinine ratio was measured annually.
One response stated this was done at each clinic visit

Method:



Elevated urinary Albumin to Creatinine ratio- action



Transition to adult care

Age of transition:

60% said transition starts at age 16

18% said 18-19 years

Small minority indicated 14-15 years , 17 years or dependant on age of the individual

Some indicated that staffing/capacity issues had delayed when YP started transition

Clinics:

Majority indicated that transition process involved joint clinics.

One respondent advised of temporary discharge to GP due to a staffing gap

Three stated YP may be discharge to GP if DNA or by patient choice / stable.

Feedback on T2DM Guidelines

Concise insulin
remission therapy drug
BG Revision
Co-morbidities
new Hub/spoke
update reversal
support

Next steps

- Dissemination: National type 2 network meeting, DUK, National type 2 Study day, BSPED
- Review ACDC guidelines in light of barriers uncovered
- First year of care
- Develop care pathways to overcome barriers to screening and treatment of co-morbidities
- Spotlight audit repeat?