

# Which insulin regimens are used in adults newly diagnosed with Type 1 diabetes?

## Results of an electronic survey of healthcare professionals in the UK and Ireland.

Carolyn Taylor<sup>1</sup>, Jackie Elliott<sup>1</sup>, Helen Hopkinson<sup>2</sup>

1. Sheffield Teaching Hospitals NHS Foundation Trust; 2. Greater Glasgow and Clyde Health Board

### Background and Aims

In light of the new NICE Type 1 diabetes (T1DM) guidelines<sup>1</sup>, we wished to explore current practice in the choice of insulin regimens for adults with newly diagnosed T1DM amongst healthcare professionals (HCPs) in the UK and Ireland, to identify if there is consensus about what should be used as well as the factors that influence clinicians' choice of regimen.

### Methods

An on-line questionnaire using Survey Monkey<sup>®2</sup> and incorporating 'skip logic' to enable respondents to bypass irrelevant questions was developed and piloted within our own services before being distributed via ABCD, DAFNE, DMEG and Diabetes Education Network emailing lists.

The survey was live for 1 month (October 2015).

Data collected included:

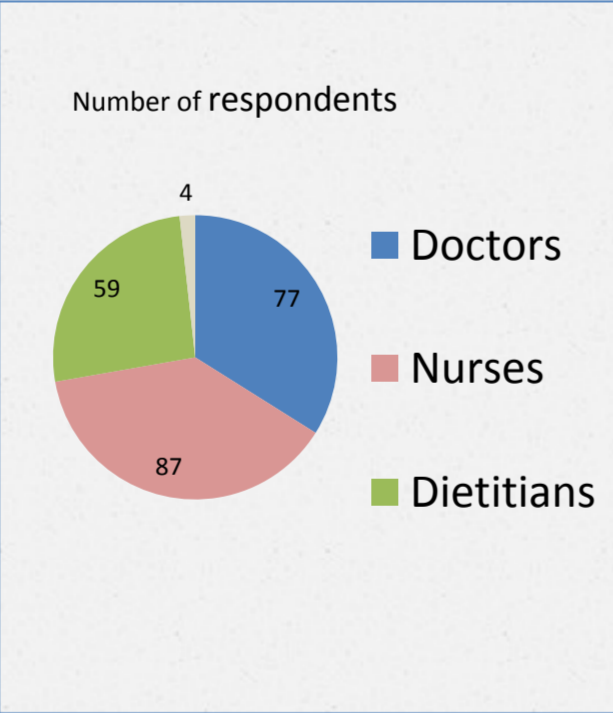
- Profession
- Main area of practice
- Clinic post code
- Availability (plus name) of structured education programme
- Factors influencing choice of regimen (ranked 1-8)
- Types of insulin used (human vs analogue)
- Choice of regimen on day 1 for a patient newly diagnosed with T1DM
- Reasons for choosing alternative regimen for newly diagnosed
- When regimen are changed if necessary
- When patients are offered structured education

### Results

227 surveys were completed

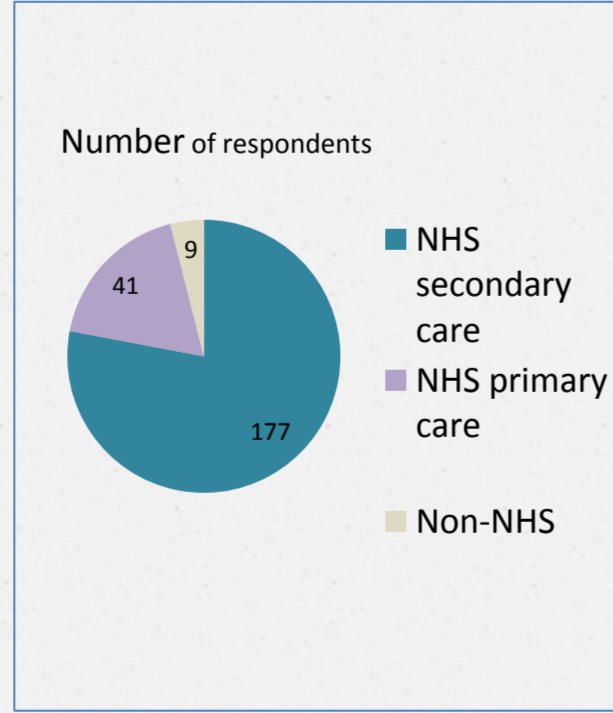
#### Respondents

- 34% doctors
- 38% DSNs
- 26% dietitians
- 2% unspecified.

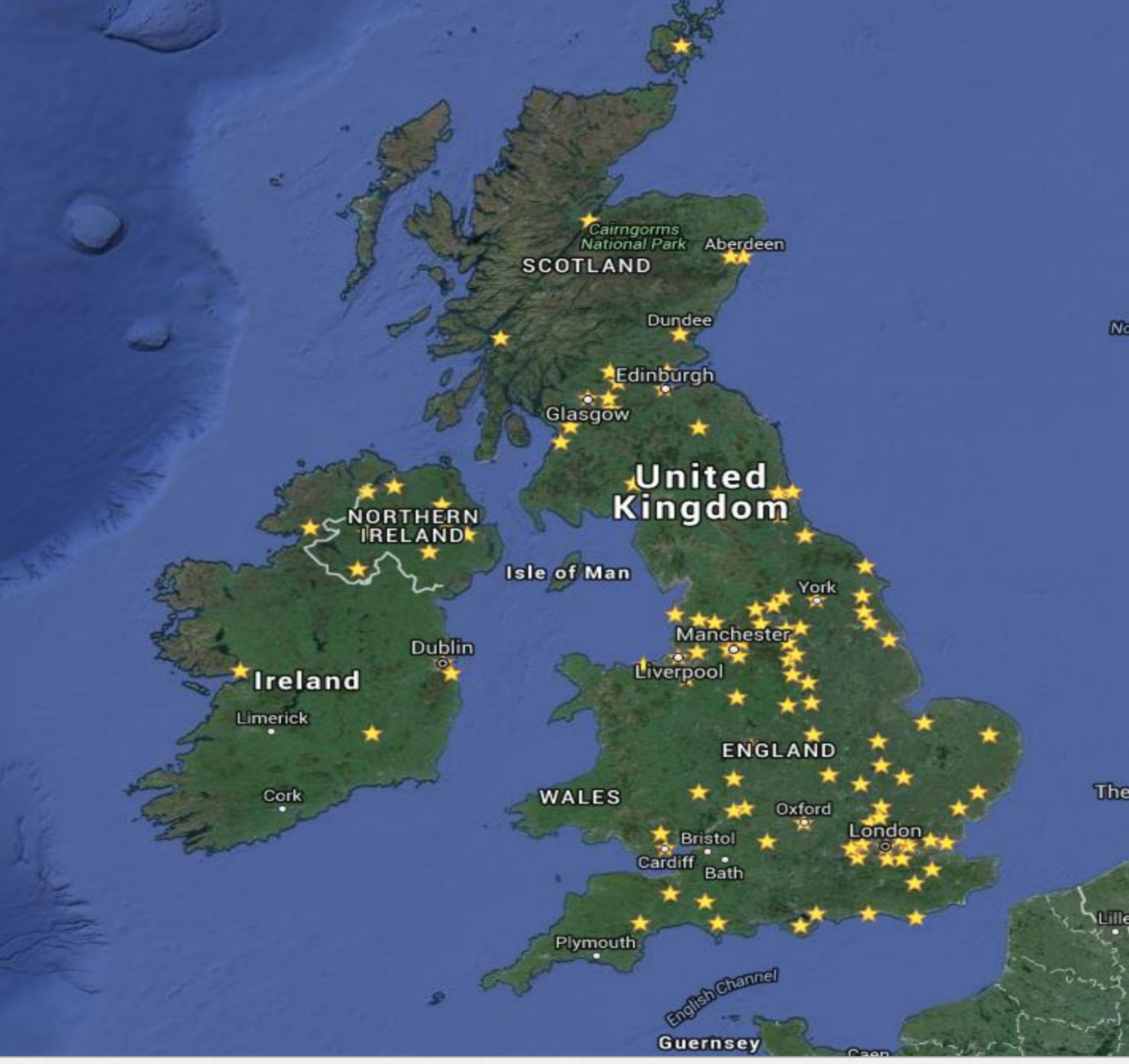


#### Area of Practice

- 78% worked in NHS secondary care
- 18% in NHS primary care
- 4% non-NHS.

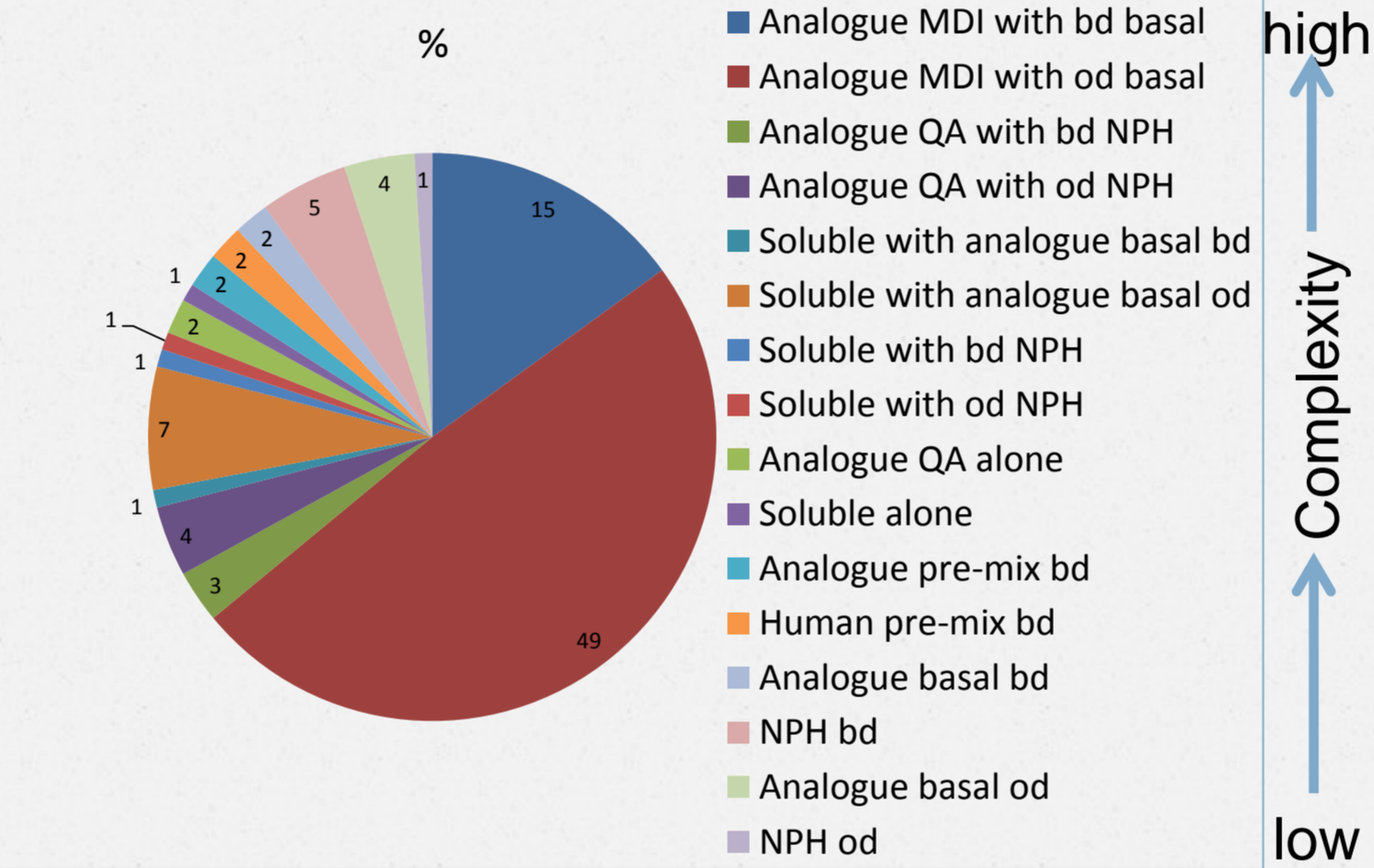


### Map of Respondents



113 individually listed cities, towns or regions were represented, from Shetland in the North of Scotland to Taunton in the South of England; Galway in the West of Ireland to Yarmouth in the East of England. Incomplete postcode data prevented linkage of data from the same clinics.

### Choice of Regimen for Newly Diagnosed T1DM



#### Structured Education: Complex Starting Regimen

96% (n=107) of those using analogue-based multiple dose injection (MDI) with once-daily basal insulin offered structured education. 45% (n=50) specified DAFNE

100% (n=34) of those routinely using analogue-based MDI with twice-daily basal insulin (as recommended by NICE) offered structured education. 97% (n=33) specified DAFNE

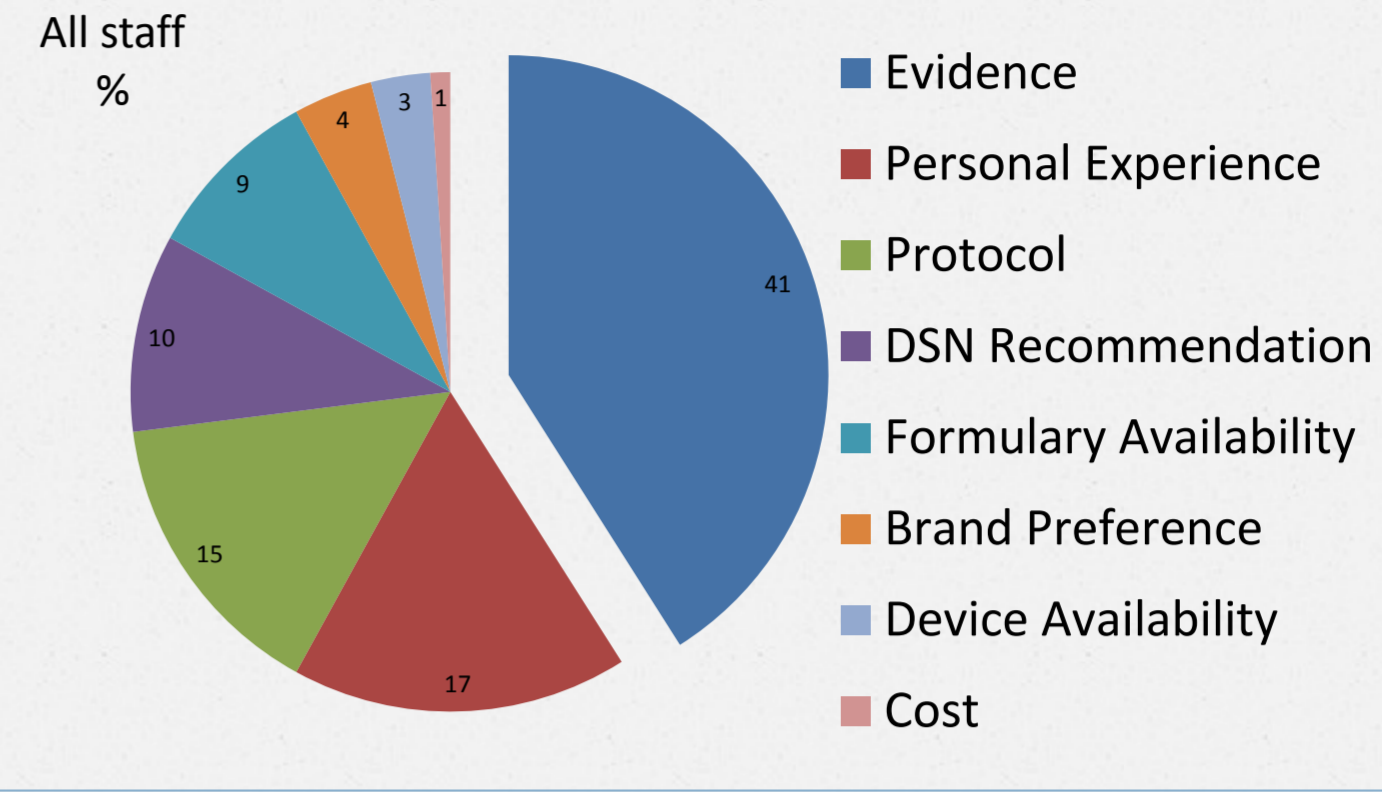
#### Simple Starting Regimen

Twice-daily NPH or once-daily analogue basal were preferred by 21 (9%) respondents (11 and 10 respectively). Structured education was offered in all of these services.

### Conclusion

There is variation in choice of insulin regimen, perhaps reflecting a dearth of research data from this patient group. HCPs should be encouraged to audit and publish data on their newly diagnosed T1DM patients.

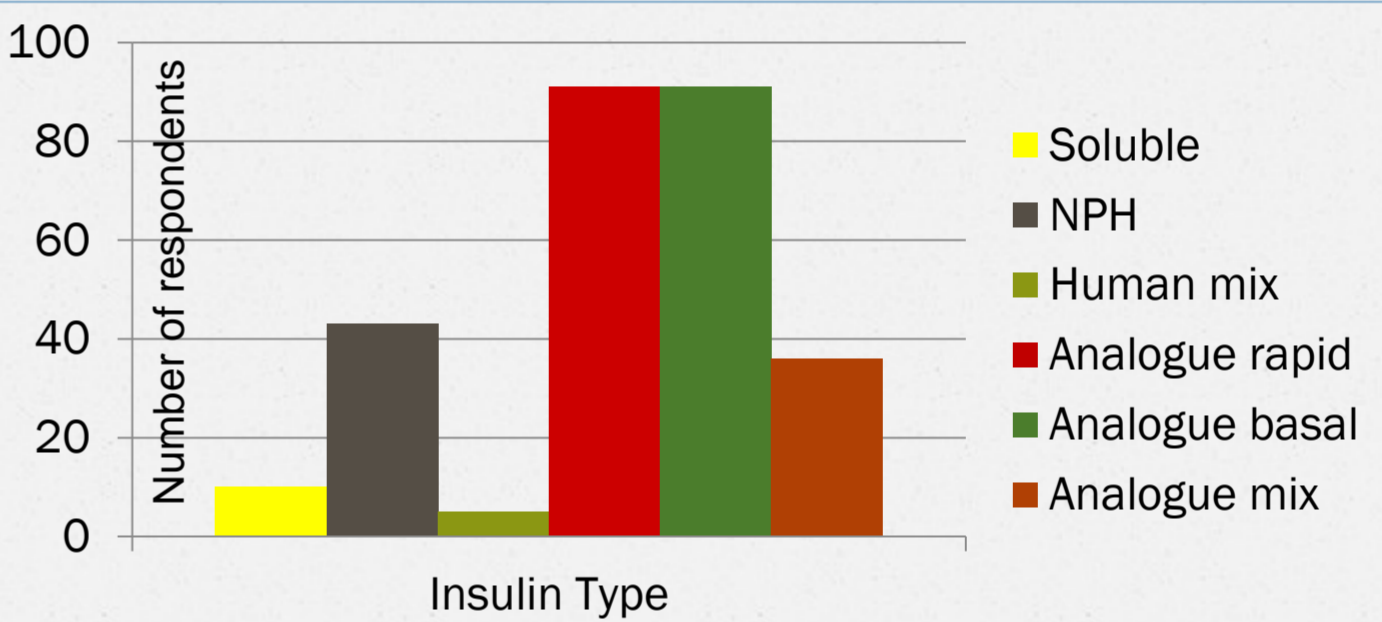
### Influencing Factors



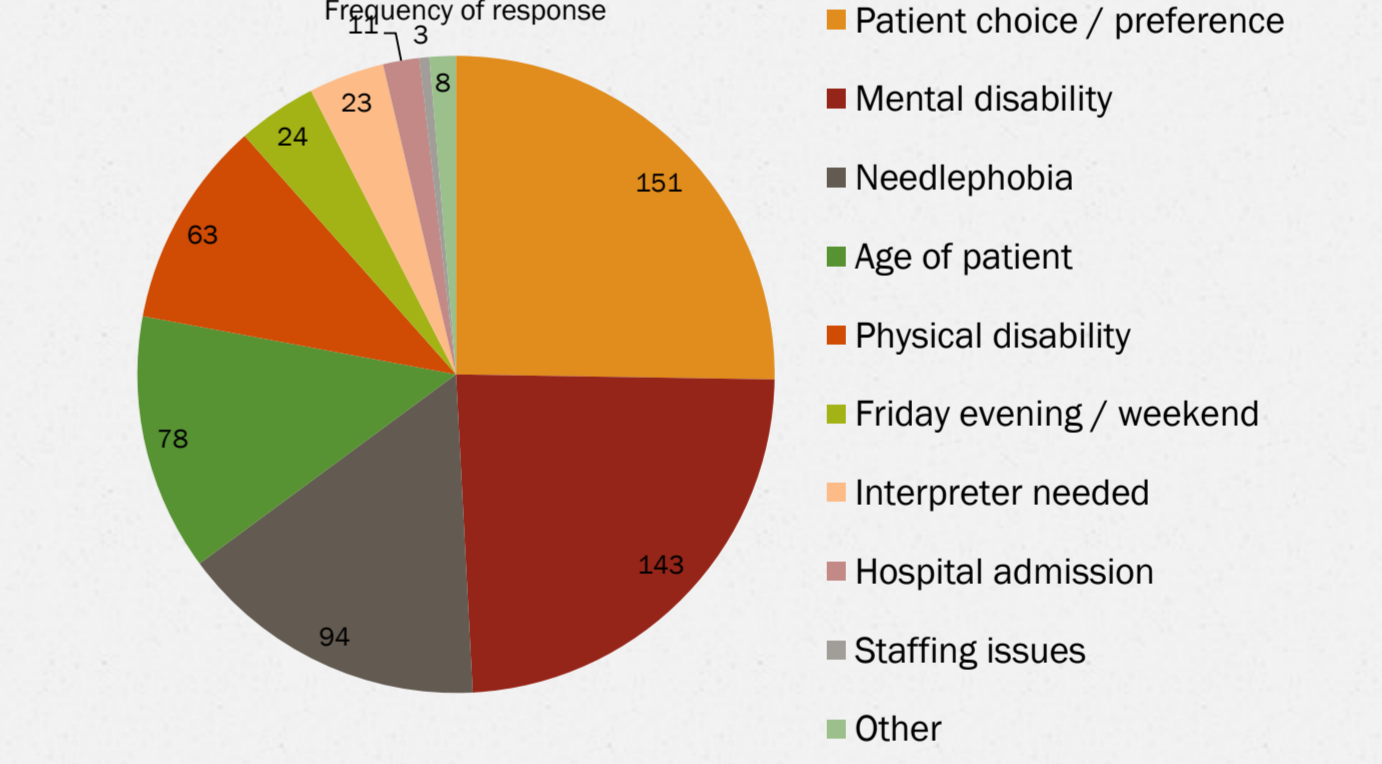
92 (41%) ranked 'evidence' as the primary influencing factor for choice of insulin regimen; with 'personal experience' and 'protocol' being ranked second and third respectively.

Amongst those ranking evidence first, the treatment of choice for newly diagnosed is an analogue-based MDI regimen using once-daily basal (50% doctors; 45% DSNs; 48% dietitians).

### Insulins Used in T1DM By Those Stating 'Evidence' as the Primary Influencing Factor



### Factors Influencing Decision for an Alternative Regimen



### Summary

227 HCPs (34% doctors) responded, 78% in NHS secondary care. Whilst over 80% use some form of MDI regimen for newly diagnosed Type 1s and 40% state that evidence influences their prescribing decision, only 15% choose NICE-recommended analogue-based MDI using twice-daily basal. There is no obvious relationship between the initial insulin regimen and the availability of structured education in the results of this survey

Carolyn Taylor, Diabetes Specialist Nurse, email address for correspondence: carolin.taylor@sth.nhs.uk

### References:

1. nice.org.uk/guidance/ng17, August 2015. ISBN: 978-1-4731-1389-3
2. https://www.surveymonkey.net

### Acknowledgements:

We would like to thank ABCD, DAFNE, DMEG and DEN for helping to distribute the link to the survey via their email circulation lists.

