



### BACKGROUND

**NICE** National Institute for Health and Care Excellence  
Type 1 diabetes in children and young people

8 Monitoring for complications and associated conditions

Offer children and young people with type 1 diabetes monitoring for:

- thyroid disease, at diagnosis and then annually until transfer to adult services (see the NICE Pathway on thyroid disease)
- moderately increased albuminuria (albumin:creatinine ratio (ACR) 3–30 mg/mmol) to detect diabetic kidney disease, annually from 12 years
- hypertension, annually from 12 years

Refer children and young people with type 1 diabetes for diabetic retinopathy screening from 12 years, in line with Public Health England's Diabetic eye screening programme. See diabetic retinopathy below.

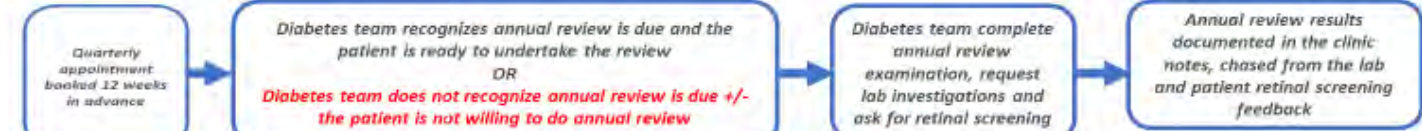


Diabetes complications are what people with diabetes and their families are the most afraid of, no matter what age the person is. The younger the age at diagnosis is, the longer the journey with this chronic illness will be.

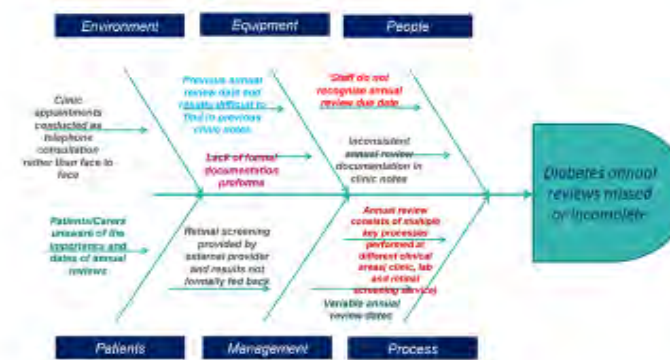
1 diabetic child in 5 misses their annual diabetes review. This results in early complications being undetected and interventions delayed. Their future is at risk of blindness, kidney failure and amputations.

### DIAGNOSTICS

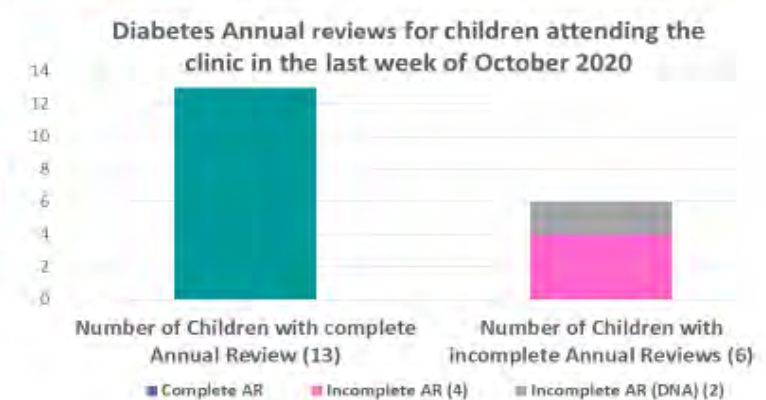
High Level process map



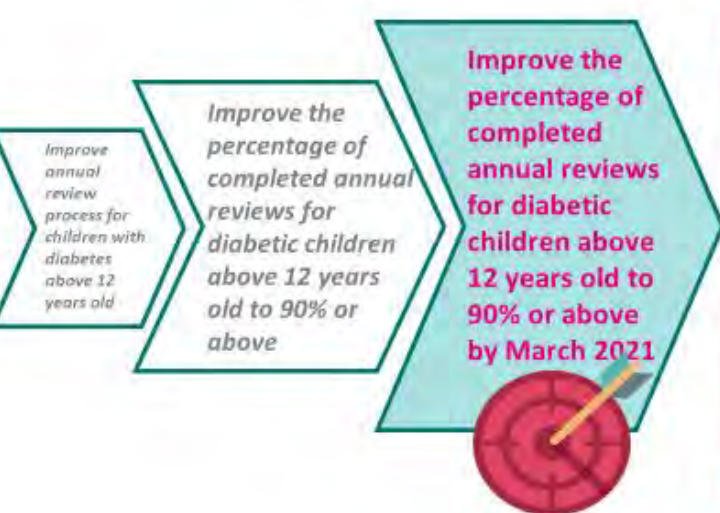
Fishbone diagram



Histogram



### AIM AND MEASURE DEFINITION



**Chosen measure**  
The percentage of children above 12 years attending the clinic who have completed annual review in the last 12 months

**Inclusions**  
Children with diabetes above 12 years old attending diabetes clinic

**Exclusions**  
CFRD (Cystic Fibrosis Related Diabetes) patients who attend the clinic on another site.

**Sampling method & frequency**  
Data collected from Cerner clinic notes and lab results on weekly basis.

### CHANGE IDEAS → PDSA



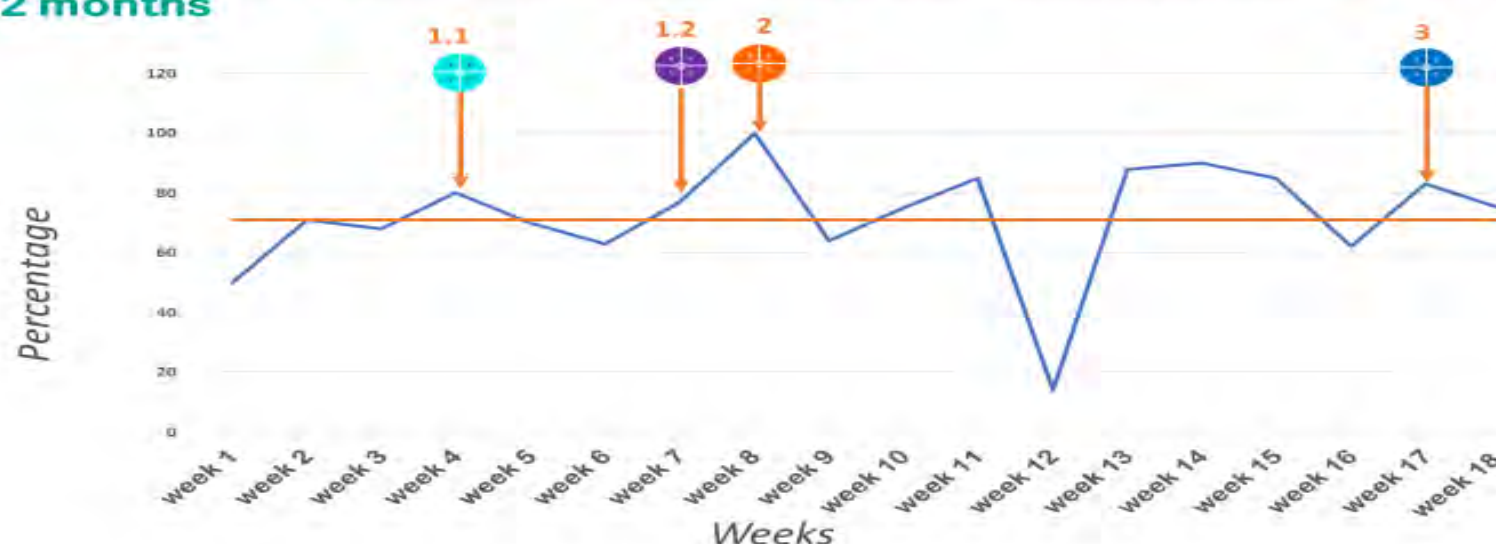
### PDSAs- summary table

| PDSA Test # | PLAN                  | Do                                                                                                  | STUDY                                                                                                                                                                                                                                 | ACT                                                                                                                       |
|-------------|-----------------------|-----------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| 1.1         | <b>MDT engagement</b> | Introduce the project to PDSN and junior doctor<br><br>*PDSN : Paediatric Diabetes Specialist Nurse | 1-Useful feedback<br>2-PDSN already collecting data about the number of the patients who missed annual reviews<br>3-PDSN will help in collecting data Juniors doctors motivated and suggested introducing an annual reviews proforma. | <b>Extend</b><br>Present to the whole MDT on Tuesday MDT meeting                                                          |
| 1.2         | <b>MDT engagement</b> | Powerpoint presentation to the whole MDT on Tuesday MDT meeting                                     | The team welcomed the project Keen to avoid additional complicated forms Interested in Cerner diabetes form                                                                                                                           | <b>Again</b><br>Explore developing Cerner diabetes form and alert Consider further updates presentation in future meeting |

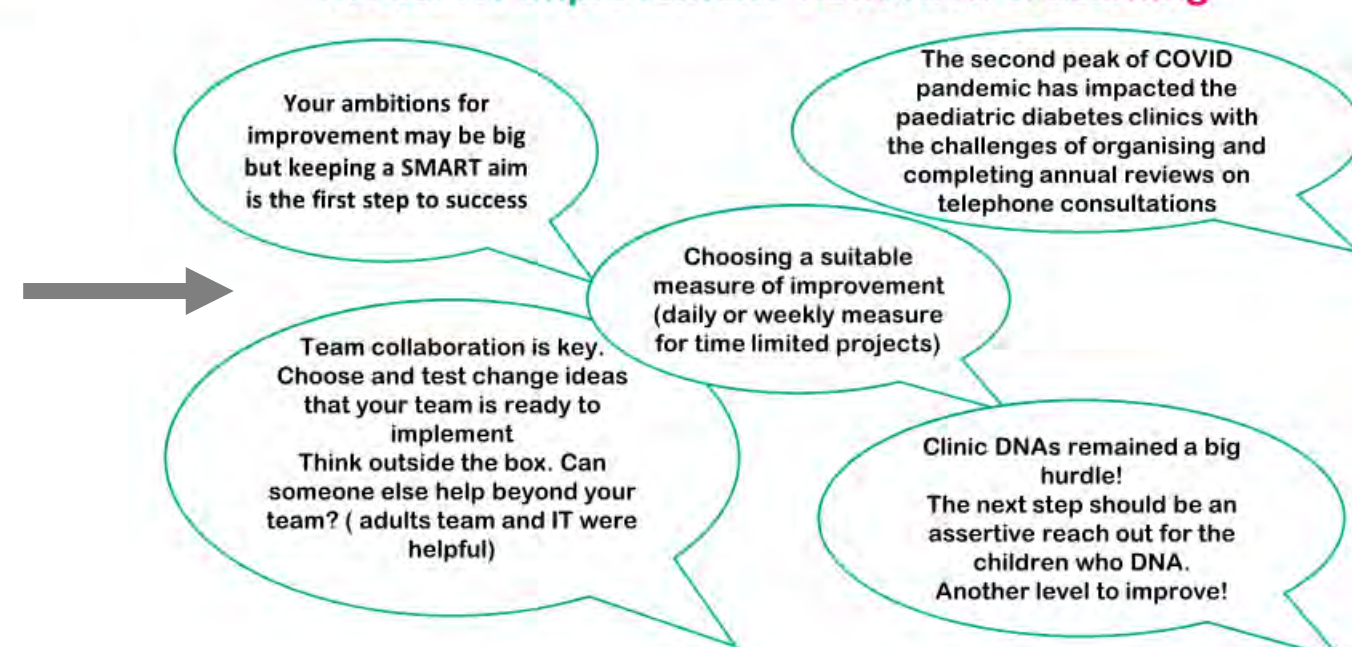
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|-------------|-------------------------------------------------------|----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2           | <b>Annual reviews reminders in pre-clinic meeting</b> | Verbal reminders to check and update annual reviews Zoom preclinic meeting | Difficult to sustain , need to allocate a team member every week. Need planning ahead of the clinic. Meeting time is limited so unable to go through the list in details.                  | <b>Abandon</b><br>Reminders needs to be set to the target patients only.                                                                                                                                                                                                                      |
| 3.1         | <b>Introduce Cerner diabetes annual review form</b>   | Contact manager and IT department                                          | Feedback from adult diabetes team highlighted problems with the existing form. Management and IT department offered to fix it. Both adult and paediatric team are keen to improve the form | <b>Adopt/Adapt</b><br>1-The form is useful.<br>2-Thyroid function test and coeliac screen to be added.<br>Some details in the adult form are not needed in the paediatric form.<br>3-Potentially slow process but great motivation from different teams across different sites to improve it. |

### Percentage of patients who have completed annual reviews in the last 12 months



### Model for improvement Reflection & Learning



### Acknowledgements:

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