# Improving executive function in children with epilepsy

A collaboration between Neurology and CAMHS at the Royal Hospital for Sick Children, Edinburgh

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## Quality issue / initial problem

Support for mental health problems in children with chronic illness is an important area of unmet need.<sup>1</sup>

### Why epilepsy?

60% of children with epilepsy have a mental disorder, but only 4% receive appropriate treatment.<sup>2</sup>

#### Why executive dysfunction (ED) and epilepsy?

95% have difficulties with cognition and behaviour that affects education.<sup>2</sup> (33% meet criteria for ADHD)<sup>3</sup>

Service barriers seem to be affecting access to appropriate assessment and effective treatment.<sup>4</sup>

## Specific aim

All children with epilepsy and ED should be identified and receive appropriate assessment leading to a clear management plan in a timely manner.

## Measurement of improvement

**Baseline data** patient journeys to identify process barriers and range of supports required.

#### **Outcome measures:**

- Proportion who receive assessment for ED
- Proportion with clear management plan

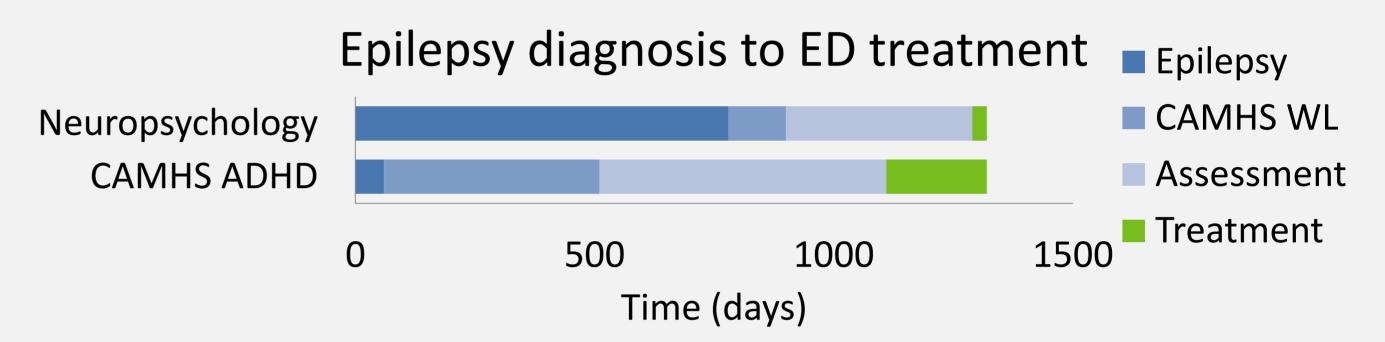
#### **Process measures:**

- Proportion screened for ED
- Time from identification of ED to assessment
- Time from assessment to treatment

## **Balancing measures:**

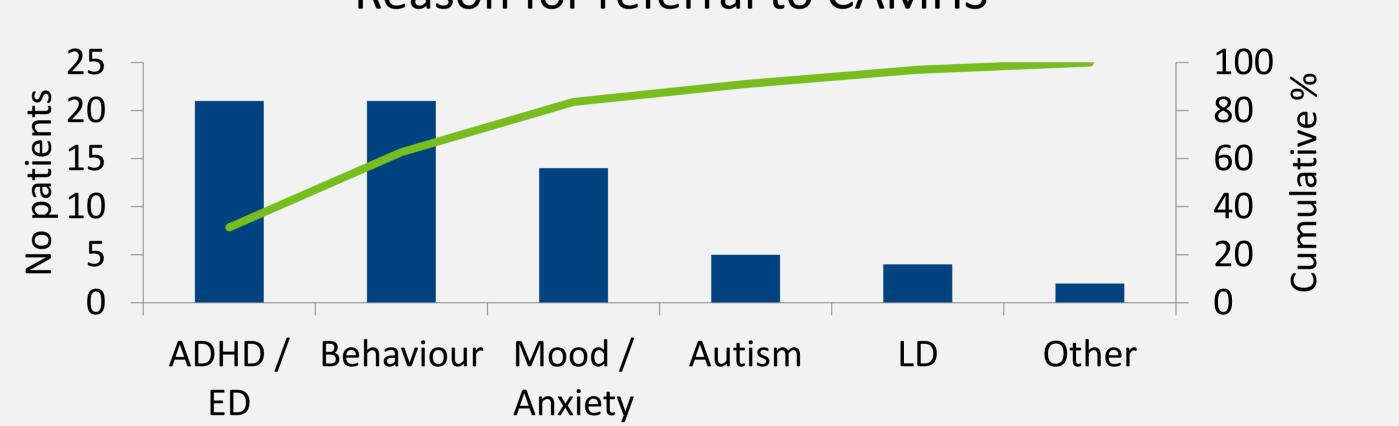
- Process measures
- Stakeholder satisfaction; Cost

#### Rejected referrals to CAMHS or lengthy delays



175 children (6-17 years old) with epilepsy

- •Of 61% screened; 42% likely to have ED
- •38% had contact with CAMHS; 7% treatment for ED Reason for referral to CAMHS



# Tests of change

Neurology liaison meeting:

- 1. Joint clinic: Psychiatrist joins Neurologist
- 2. Facilitated referral to CAMHS
- 3. Pragmatic screening
- 4. New decision pathway

#### **Tools**

- Focus groups
- Case studies
- Population stratification
- Pareto chart
- Process map
- Driver diagram
- Easier outcome data required for run chart

# Effects of change

- Heterogeneity between complex patients requires multiple solutions (i.e. care pathways)
- Ongoing role for CAMHS ADHD & Neuropsychology
- Screening an assessment time could be reduced
- Quick and safe for neurologist assess and treat ED with liaison support from psychiatrist

## Lessons learned and message for others

Neurologists could be supported to safely manage many children with ED, but there is still a role for joint working

- A data driven approach has helped clarify priorities
- Seek outcome measures that are easy to obtain

## References

- 1. Glazebrook C et al. Detecting emotional and behavioural problems in paediatric clinics. Child Care, Health and Development. 2003;29:141-149.
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