

INTRODUCTION

Epilepsy Management Gap

Children and young people with epilepsy (CYPwE) are at increased risk of comorbid psychiatric disorders, such as anxiety and depression¹, compared with their peers². Despite this, only 12.8% of UK health boards and trusts provide mental health facilities within epilepsy clinics³. Typically, children with mental health needs are referred to Child and Adult Mental Health Services (CAMHS), a service faced with significant pressures meaning patients experience waiting times up to 1-2 years to receive treatment⁴.

PAVES

PAVES is a screening and stepped early intervention tool designed to address the gap in managing anxiety and depression in CYPwE⁵. During a pilot phase in an epilepsy clinic in the Royal Hospital for Sick Children Edinburgh (now Royal Hospital for Children and Young People (RHCYP)), 53% of CYPwE, not already receiving CAMHS input, experiencing high levels of mental health difficulties. Following PAVES intervention, feedback from CYPwE, parents and clinicians suggested a high level of feasibility and acceptability in the PAVES approach⁵.

AIMS & OBJECTIVES

This research aims to inform and consider the results of a health economic analysis of PAVES interventions in addressing mental health disorders in CYPwE in clinical practice in NHS Lothian, using pilot phase data. The cost and change in number of CAMHS referrals are compared for PAVES interventions (post-screening) and current practice.

METHOD

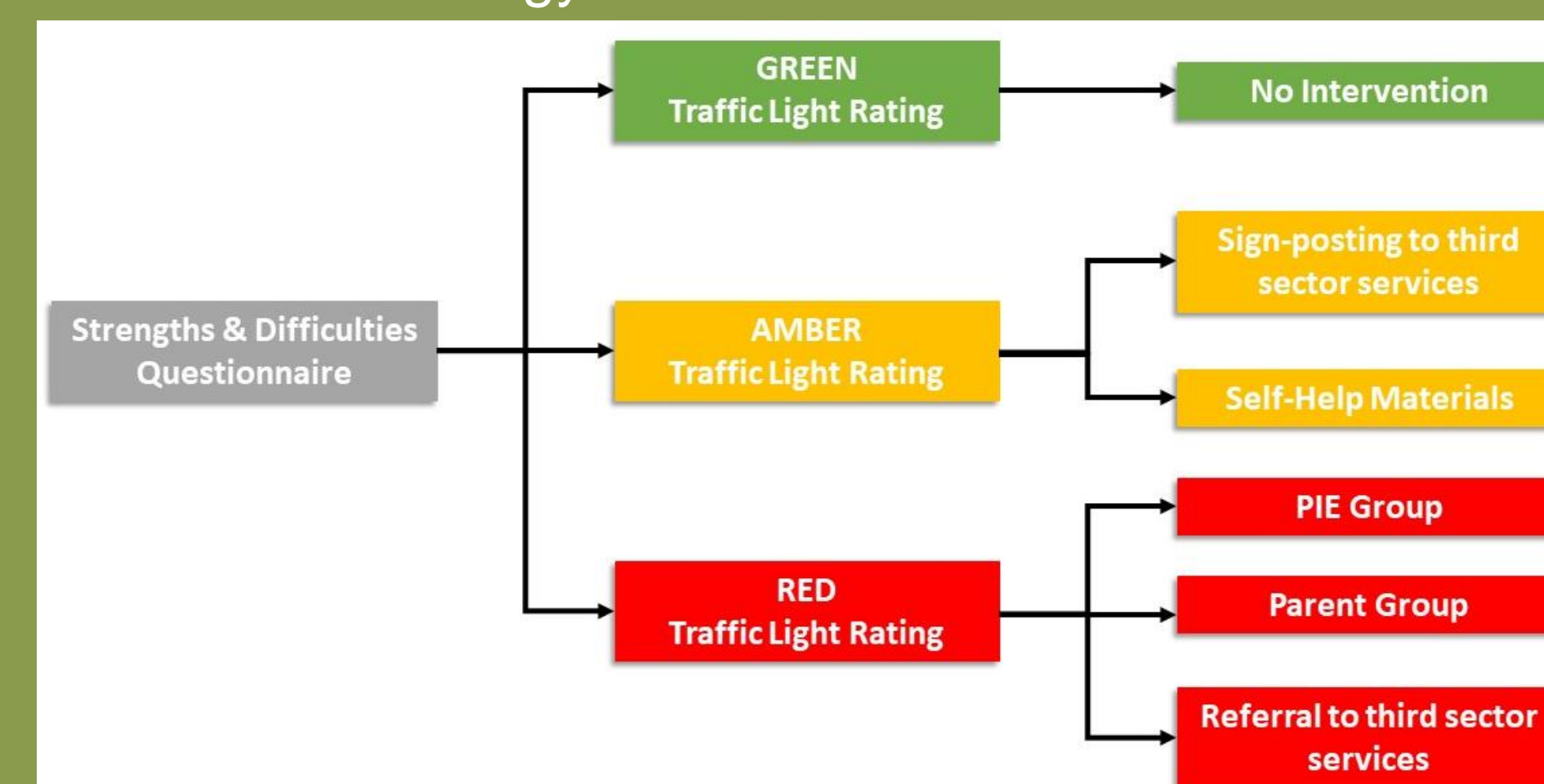
PAVES vs Current Practice

PAVES:

- Patients and their parents undergo screening using the Strengths and Difficulties Questionnaire (SDQ) ⁶.
- Scores correlate with traffic light ratings of 'RED', 'AMBER' or 'GREEN' to indicate potential mental health vulnerability.
- The higher of the parent/carer or patient screening results is used alongside clinical judgement to signpost appropriate early interventions.
- CAMHS is an option for patients who have mental health difficulties requiring escalation.

Current Practice:

- Patients with mental health difficulties are identified during neurology appointments
- CAMHS referral is considered based on clinical severity of mental health problems and anticipation of referral acceptance depending on historical neurology referral cases.



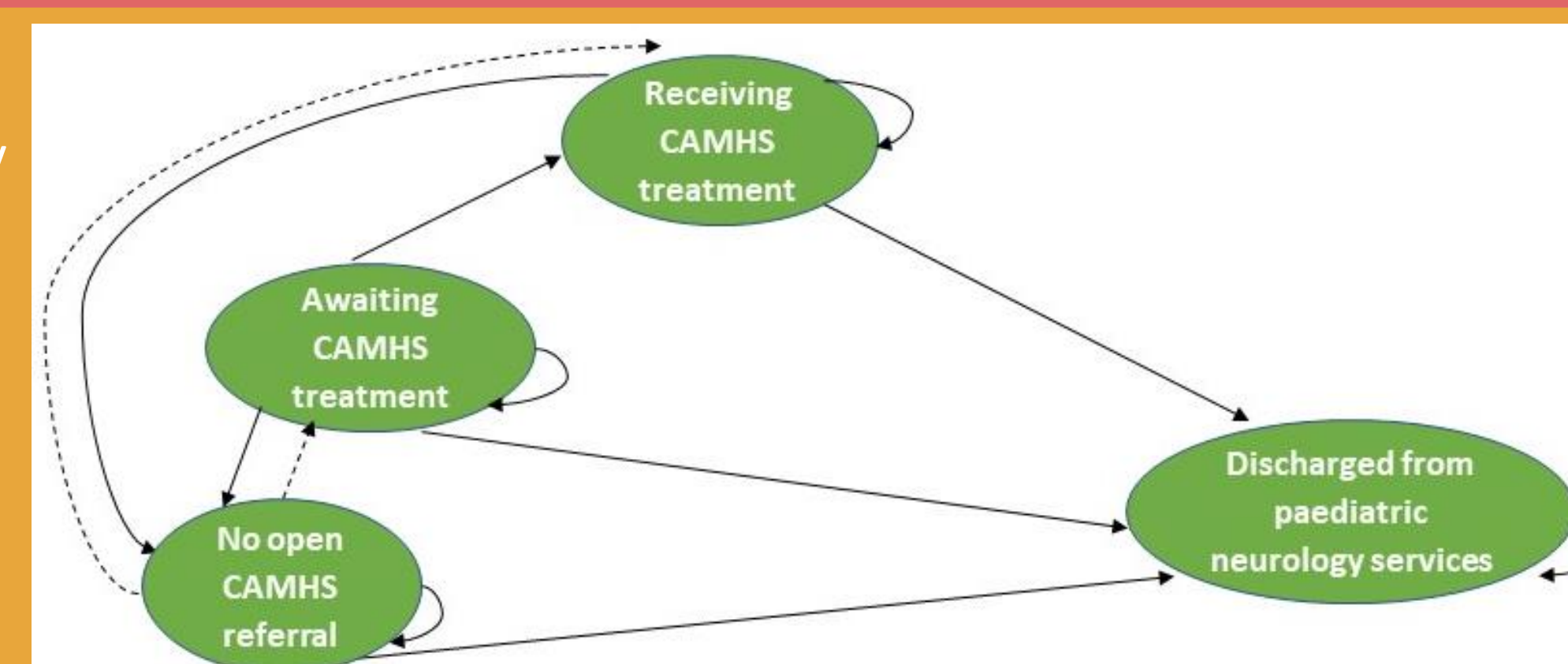
PAVES intervention options depending on traffic light rating. PIE; Psychological Intervention for Epilepsy

Data Collection

- Data to inform the health economic analysis was collected from the PAVES pilot phase including 234 CYPwE
- There was no specific CAMHS referral data available for CYPwE in current practice so it was assumed that patients screening 'RED' during the PAVES pilot would have been referred to CAMHS if managed in current practice

Health Economic Analysis

Health economic analysis was undertaken by the Scottish Health Technologies Group (SHTG) ⁷ within Health Improvement Scotland (HIS). An economic model with 4 transitional states was created to compare CAMHS referral rates during PAVES intervention and current practice. Unit costs of PAVES and CAMHS in NHS Lothian were obtained using standard sources.



State transition model to compare CAMHS referrals for CYPwE managed through PAVES or current practice

RESULTS

The economic model was used to simulate a cohort of 100 patients from summary data to hypothetically receive either PAVES or standard care. Standard costs were applied to calculate the cost-effectiveness of PAVES vs current practice;

Strategy	Total Costs	Total CAMHS Referrals	Costs Savings of PAVES	CAMHS Referrals avoided through PAVES
PAVES	£74,820	23		
Current Practice	£103,199	49	£28,379	26

CONCLUSION

PAVES is likely to dominate current practice as it both less costly and reduces referrals to CAMHS, subject to uncertainty in assumptions. PAVES enables patients to receive psychological support, preventing delay to treatment associated with CAMHS referral. The PAVES project is ongoing and future practice should involve gathering data to determine the direct effect of PAVES on the mental health of CYPwE, as well as gathering further data on CYPwE CAMHS referral rates to reduce uncertainty.

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