variants for 'gastrostomy', 'children' and 'carers'. Studies were limited to those: describing the impact of gastrostomies in children on the family and carers, published in English after 2000.

Results 444 articles were identified. After exclusion of duplicates and abstract and full text screening, 26 studies were included. The number of care providers included in the studies ranged from 10–302 (median 50). Assessment tools used included Zarit Caregiver Burden Scale (Zarit scale), Caregiver Strain Index (CSI), State-Trait Anxiety Inventory (STAI), Quality of Life Scale (SF-36) and Satisfaction Questionnaire with Gastrostomy Feeding (SAGA-8).

- Insertion

Carer anxiety tends to increase in the period leading up to, and for a short period following gastrostomy insertion. This anxiety may be exacerbated by the carers' inherent personality traits, the severity of a child's condition, and lack of a support network.

- Medium term

3–6 months after gastrostomy insertion, several studies reported reduced anxiety (reduced STAI scores), or improved carer reported quality of life (higher SF-36 scores), largely as a result of reduced feeding times. Implementation of care education was demonstrated to reduce carer anxiety (lower STAI scores). Carer satisfaction with the child's gastrostomy (improved SAGA-8 scores) also increased 3–6 months following insertion. This may be in part related to appreciation of their child's improved nutrition. The majority of carers would recommend a gastrostomy to the carer of a child in a similar position, with a significant minority reporting wanting it to have been inserted earlier.

- Longer term

Overall carer quality of life following a child's gastrostomy insertion was found to improve in 3 studies (decrease in CSI scale and increased SF-36 II score). The decrease in CSI can be attributed to reduction in care burden and the carer's increased confidence. However, another 3 studies found that carer quality of life was reduced (increase in CSI scale), due to communication problems with the child, food, and social restrictions. An enduring source of stress for carers is how their child's gastrostomy is perceived by others.

Conclusions The social and psychological burden on caregivers of a gastrostomy in childhood varies over time. An initial dip is followed by an enduring overall improvement beginning from 3 months post-insertion. There is evidence that paediatric gastrostomy has long-term positive effects on carer burden and quality of life, however some aspects of carers' quality of life remain impaired.

Carer education and support, as well as education of the public with respect to feeding tubes, is vital to reduce the burden placed on carers.

British Paediatric Neurology Association

1464

TIME TO AETIOLOGICAL DIAGNOSIS IN CHILDREN PRESENTING WITH EPILEPSY AT A TERTIARY CLINIC: A SERVICE EVALUATION

Charlotte Davis, Fenella Kirkham. *University of Southampton*

10.1136/archdischild-2021-rcpch.661

Background In order to treat epilepsy, classification is key. The International League Against Epilepsy (ILAE) published guidelines on classifying epilepsy in 2017, emphasising the importance of aetiology, rather than syndrome. The ILAE laid out 6 main categories: structural, genetic, inflammatory, infectious, metabolic and unknown.

NICE recommend that EEG and MRI are used to help diagnose and classify epilepsies within a target time of 4 weeks.

Objectives This service evaluation was approved by the University of Southampton ethics committee. The aims were: to establish waiting times for investigations, primarily EEG and MRI, in children presenting with epilepsy; to document the proportion of children receiving an aetiological classification for their epilepsy and to determine how long this took to reach.

Methods Data were collected from clinical records of children with epilepsy attending one of the Paediatric Neurology clinics at University Hospital Southampton between 2010–2019. Time to diagnosis, EEG, MRI and aetiological classification were measured in weeks. The data were analysed using descriptive statistics (SPSS).

Results Twenty-nine (72.5%) of the 40 children (22 boys), presenting at a median age of 3.25 years (range 0 to 15 years), received an aetiological diagnosis. Most common was structural aetiology (17/40, 42.5%) with median time to diagnosis of 7 weeks (range 0–60 weeks), followed by genetic with a median time of 64 weeks (range 0–55 weeks), (Mann-Whitney, $p=0.067$). Ten patients had a genetic abnormality confirmed by testing, 8 in the genetic category and 2 structural with a genetic basis. In 19 children, there was an epilepsy syndrome diagnosis: 8 focal symptomatic epilepsy, 3 benign epilepsy with centrotemporal spikes, and one each with focal and idiopathic generalised, generalised epilepsy, childhood absence, myoclonic absence, paroxysmal upgaze of childhood with absences, juvenile myoclonic, West and Lennox-Gastaut syndromes. The proportion of patients receiving investigations in ≤ 4 weeks was 46.2% for EEG and 28.2% for MRI. Age was an important factor for referral, with children aged ≤ 1 year referred to (median 0 [range 0–25] weeks) and seen by a specialist (4 [0–14] weeks) faster than children aged > 1 year (6 [0–286]; $p=0.041$ and 14 [2–115]; $p=0.002$ weeks respectively; Mann-Whitney). Those children who waited longest for EEG also waited longest for MRI (Spearman's rank $p=0.0004$). There were no significant differences in waiting time for investigations by location ($p=0.431$ for EEG and $p=0.271$ for MRI; Kruskal-Wallis) or by aetiology ($p=0.396$ for EEG and $p=0.297$ for MRI; Kruskal-Wallis).

Conclusions In recent years there have been many advances in epilepsy classifications and treatment, alongside which we would hope to see an improvement in the delivery of care, however there are still several shortfalls apparent, particularly for those aged > 1 year.

With recent advances in the field of epilepsy, especially in genetics, it may be that aetiological classifications have become more complex. In the meantime, syndrome classification may continue to play a role in treatment and prognosis. Further research into the reasons for the delays in investigation and classification of epilepsy would be useful to tackle the shortfalls.