Lennox-Gastaut Syndrome. Situation analysis and Family Journey

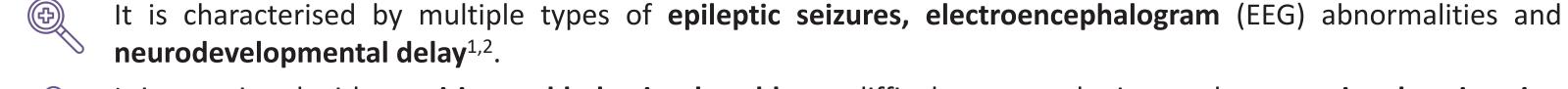
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INTRODUCTION



Lennox-Gastaut syndrome (LGS) is a severe and rare form of developmental and epileptic encephalopathy that usually develops in childhood.^{1,2}.



neurodevelopmental delay^{1,2}. It is associated with cognitive and behavioral problems, difficult to control crises and progressive deterioration throughout the patient's life³.

It can be secondary, with identifiable cause (75%), or idiopathic or cryptogenic, without cause (25%)³.

OBJECTIVE



To outline the **Family** Journey of both paediatric and adult LGS patients and their families.

METHODOLOGY

Establishment of a multidisciplinary group with representation from healthcare professionals (paediatric neurologists, adult neurologists, neuropsychologists, and nurses) and patient associations.

Interviews and work session with the multidisciplinary group.

Consensus on the LGS Family Journey.

FAMILY JOURNEY OF PAEDIATRIC PATIENTS WITH LENNOX-GASTAUT SYNDROME

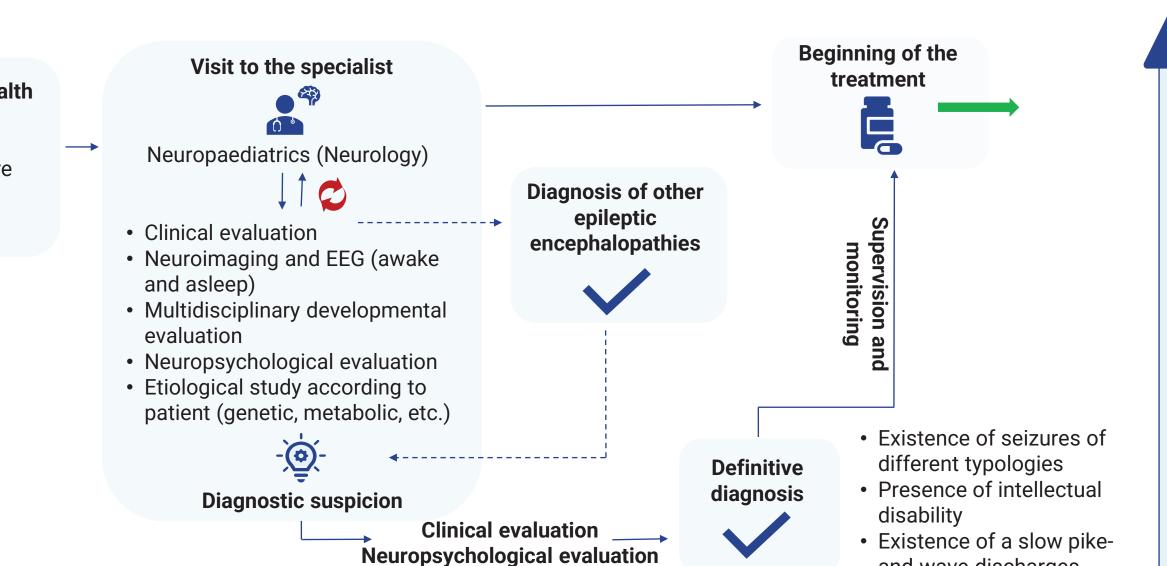
Diagnostic delay due to variability of symptoms and confusion with other childhood epilepsies.

- Progression from encephalopathies and need for constant vigilance.
- Diagnostic detection and early limitations due to lack of EEG with sleep recording and long waiting lists.
- Early diagnosis necessary for early specific treatment and and individualised care.

Access to health services **Primary Care** attacks, atypical, myoclonid or generalised tonic-clonic seizures). Intellectual disability

before the onset of the

first seizures



EEG (include sleep)

 Individualised treatment, tailored to patient assessment, crucial due to treatment resistance.

• Therapeutic innovation essential to meet the needs of patients who do not respond to current treatments.

 Access to specialised and innovative treatments limited by bureaucracy.

Initial symptoms and entry to healthcare services

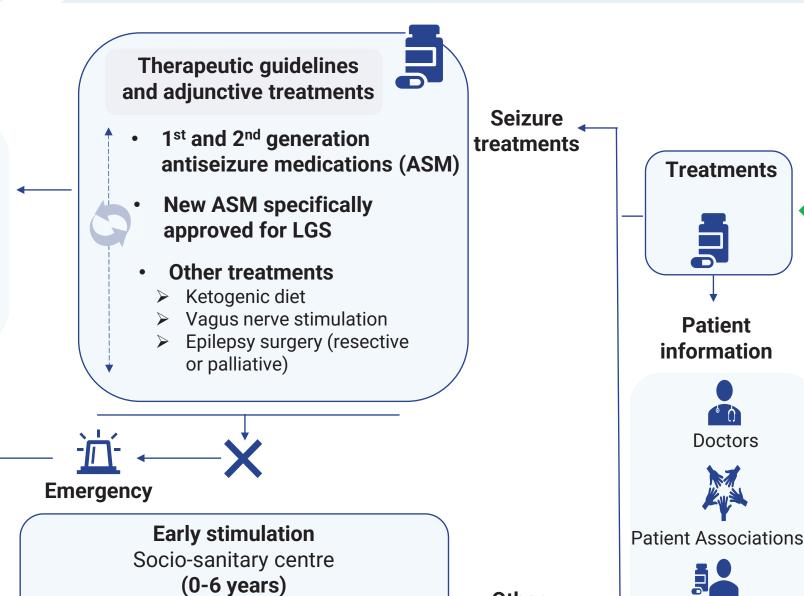
- **Education of family members** by neuropaediatricians, nurses and social workers to manage uncertainties and resolve doubts.
- Multidisciplinary collaboration and coordination to manage comorbidities complications, and polymedication specific through protocols.
- Child-adult transition organised through coordinated programs between paediatric and adult care.

Reference centres **Supervision and** (Epilepsy unit)) monitoring Posible referral Multidisciplinary **Supervision and monitoring Transition** treatment according to the patient's needs: Psychiatry Psychology Neuropaediatrics/Neurology Physiotherapy Rehabilitation Pneumology Neuropsychology (depending Endocrinology on the hospital) Rescue medication

Primary Care

or neurology

(Referral)



 Non-pharmacological treatments available in limited centres.

• Inequitable access to early care and long waiting lists.

 Insufficient public post-early care (neurorehabilitation services and neuropsychology) and high financial burden on families.

Patient associations crucial supporting families.

• Challenging partnership due to the variability of the disease.

Follow-up and supervision (<18 years)

Initial treatment and control

Pharmacists

and-wave discharges

pattern in the EEG

Diagnotic process

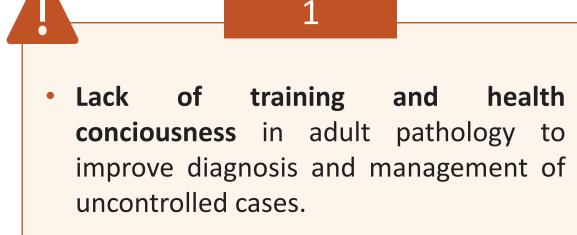
FAMILY JOURNEY OF ADULT PATIENTS WITH LENNOX-GASTAUT SYNDROME

Addressing issues at the cognitive,

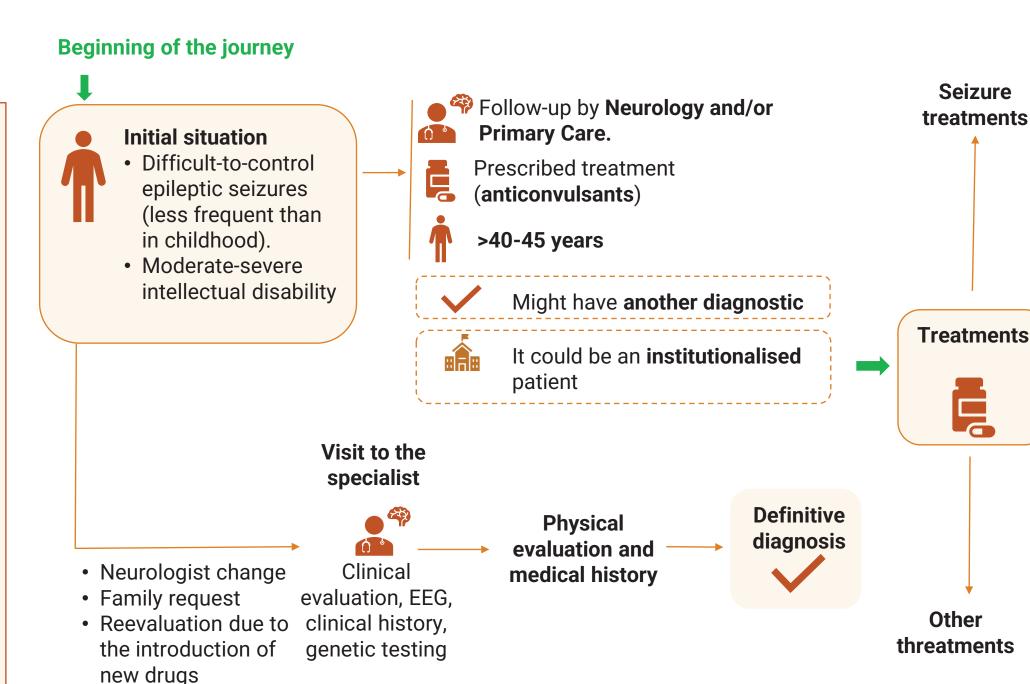
developmental, motor, and sensory levels

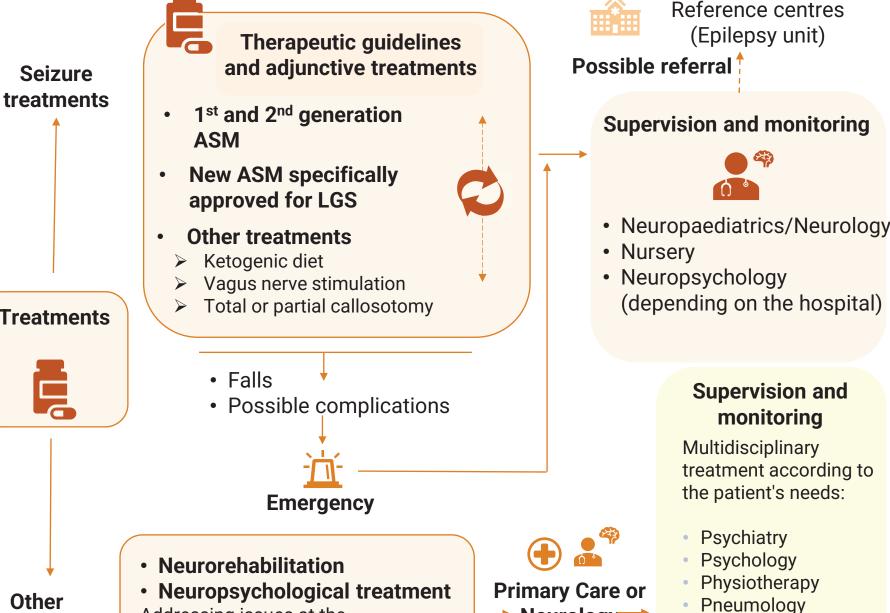
Addressing issues at the

psychological, motor, sensory level



- patients with Re-evaluation uncontrolled significant seizures or disease deterioration adjust to management.
- Adequate EEG evaluation given the variability of patterns in adults
- Complete clinical evaluation and detailed medical history examination to ensure correct diagnosis.





Other

threatments

Individualised treatment is essential due to the severity and associated neurological disability.

Access to therapeutic innovations in adults despite limitations in hospital dispensation.

 Lack of access to neurorehabilitation, neuropsychology and physiotherapy in the public system and high economic burden for families.

Multidisciplinary collaboration in the absence of specific clinical guidelines and reinforcement of the role of specialised nurses.

Initial situation and diagnostic process

Paediatric patients

Initial treatment, follow-up and supervision

Endocrinology

Others (according to

associated diseases)

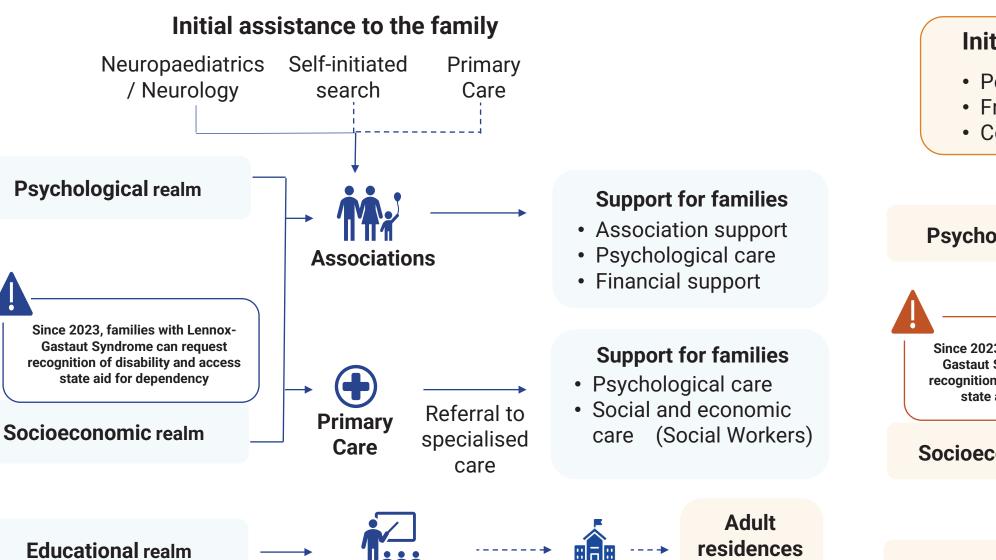
→ Neurology

(referral)

Difficulty in accessing psychosocial care in the public health system due to lack of resources and long waiting lists.

- Lack of knowledge and bureaucratic difficulties in obtaining public financial aid.
- access to support and **specialised resources** in the regular educational environment.
- · Limitation in the administration of treatment in educational centres and lack of awareness of epilepsy.
- Need to facilitate access to support as helmets and wheelchairs through the public health system.

PSYCHOSOCIAL NEEDS



Regular education centre

Special education centre

with support

Adult patients Initital situation of the family Possible symptoms of depression or anxiety Frustration with the long journey experienced Concern about who will take care of the patient Support for families Psychological realm Association support Psychological care **Associations** Financial support Since 2023, families with Lennox-Gastaut Syndrome can request Support for families recognition of disability and access state aid for dependency Psychological care Referral to Social and economic care **Primary** Socioeconomic realm specialised (Social Workers) Care Educational realm

Limited access to psychosocial care and specialised centres and services in the public health system due to lack of resources and long waiting lists.

- Lack of knowledge and bureaucratic difficulties in accessing public financial aid.
- Problems with **referral protocols** and long waits to access residences and day care centres.
- Lack of resources for families and caregivers, especially for full-time care.
- Need to facilitate access to support materials such as helmets and

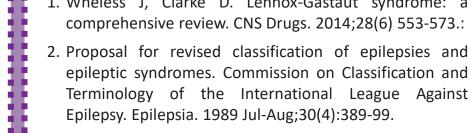
wheelchairs through the public health system.

CONCLUSIONS

- LGS has varied symptomatology, complicating diagnosis. Early diagnosis is essential for individualised care and personalised treatments with pharmacological and non-pharmacological options.
- It affects cognitive, motor and adaptive development, with an emotional and economic impact on families and caregivers. Psychological resources and neurorehabilitation programs are necessary.
- A comprehensive approach with specialised medical care and psychosocial support is vital. It is crucial to promote research and raise awareness of early diagnosis and access to appropriate treatments.

REFERENCES

Daycare centres



C, Riel-Romero RM. Lennox Gastaut Treasure Island (FL): StatPearls Publishing; 2023 Jan. [accessed 2023 Sep 15]. Available at: https://pubmed.ncbi.nlm.nih.gov/30422560/



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