When does a staring child need an EEG?

Every child's mind is a busy place and staring occurs when day-dreaming, thinking and imagining. Drowsy children can 'zone out'. During activities that children do not want to be part of, they can disengage visually. In stressful or over-stimulated environments, children can have a reaction of 'dissociation' where they can appear to shut down with loss of visual interaction. All these types of staring are normal.

Epileptic staring
There are largely two types of epileptic staring:

1. *Generalized absence seizures* – these are brief (maximum 10-15 seconds) staring events, often with up-rolling of the eyes, and flickers/jerks of the eyelids/face, that onset /offset abruptly, and interrupt a child during preferred activity. Sometimes there is brief mouthing or fumbling movements. When they stop, the child returns to what they were doing before. These are rare under 4 years of age, and when seen, they occur many times each day (in childhood) or at least daily (adolescence). They are more commonly seen in children who have normal academic attainment.
2. *Focal impaired awareness seizures* – vacant/staring is often >1 minute and is usually clearly associated with other seizure signs (nausea/vomiting, colour change, abnormal movements) and there is a period of recovery after. They can be episodic and cluster with periods without seizures or occur more frequently. These are usually not confused with non-epileptic staring.

Non epileptic staring OR generalized absence seizures?
This table provides a useful structured approach to clinically deciding if staring is epileptic or non-epileptic:

Non epileptic staring	Generalized absence seizures
Seen in situations of day-dreaming, imagining, when bored or drifting into drowsiness (evenings, after food, in car-seats)	Abrupt onset/offset
Seen during non-preferred activity, during stressful or over-stimulating circumstances	Interrupting preferred activity/play abruptly
First reported by teachers/therapists/health professionals but not noted by parents	Staring through someone, up-rolling of the eye-balls, twitching movements of the eyelids or face/urinary incontinence
Staring off into the distance	High frequency (multiple daily in childhood), at least daily (in adolescence)
Frequency – episodic, here and there	Hyperventilation (the child blowing with good deep breaths for 1.5-2 minutes) produces a typical clinical absence seizure (if not facilitated by hyperventilation, absences are unlikely)
Respond to vigorous touch or intrusive contact (e.g. tapping nose, flicking eye-lashes)	
Seen with body rocking movements or self-soothing behaviours	

In children with existing neurological or developmental disorders, another useful consideration is whether generalized absence seizures are expected with their known condition or not. If generalized absence seizures are not expected, then they are unlikely.

Which staring child needs an EEG?
In general, the above factors can sufficiently discriminate a child with non-epileptic staring from epileptic staring and an EEG is not required unless factors consistent with generalized absence seizures are present.