Supplementary table 1. Aetiology of non-genetic epilepsy onset in 97 patients.

Unknown aetiology	41
Known / presumed aetiology	56
Cerebrovascular disorder[a]	32
Traumatic brain injury[b]	7
Developmental anomalies of cerebral structure[c]	7
Neoplasia[d]	5
Infection[e]	3
Hippocampal sclerosis[f]	2

[a]Three with circumscribed vascular malformations, two frontal, one temporal; [b]all frontal; [c]three frontal, four temporal; [d]all temporal; [e]two with limbic encephalitis, one with a solitary frontal lesion (possible neurocysticercosis); [f]apparent on initial MRI in one patient and four years later in the other.

Time from index seizure (days)	No. patients at risk	No. patients lost to follow-up	No. patients with 2nd seizure	Cumulative risk	95% CI	
0-30	150	0	6	0.0400	0.0182	0.0868
30-60	144	0	10	0.1067	0.0668	0.1682
60-90	134	0	12	0.1867	0.1329	0.2588
90-180	122	0	29	0.3800	0.3078	0.4627
180-270	93	0	11	0.4533	0.3778	0.5364
270-360	82	0	11	0.5267	0.4495	0.6083
360-720	71	12	12	0.6141	0.5360	0.6928
720-1080	47	10	5	0.6600	0.5808	0.7378
1080-1440	32	9	3	0.6971	0.6152	0.7754
1440-1800	20	5	0	0.6971	0.6152	0.7754
1800-2000	15	14	1	0.7187	0.6314	0.8005

Supplementary table 2. Kaplan-Meier analysis: patients at risk and excluded at each time-point.

Supplementary table 3.
Analysis of the total population (*n*=150) based on the Cox proportional hazard model.

Epileptic Disorders

Characteristics	Univariable model		Multivariable model	
	HR (95% CI)	*p* value	HR (95% CI)	*p* value
Sex				
Male	1.0		1.0	
Female	0.7 (0.4-1.1)	0.1	0.8 (0.5-1.3)	0.5
Age at index seizure				
17 to <30	2.0 (1.0-3.8)	**0.04**	1.1 (0.4-3.0)	0.8
30 to <60	1.7 (0.8-3.3)	0.1	0.9 (0.4-2.4)	0.9
≥ 60	1.0		1.0	
Epilepsy aetiology				
Genetic	1.0		1.0	
Non-genetic	1.3 (0.9-2.1)	0.1	2.4 (1.1-6.4)	**0.05**
Epilepsy syndromes/types				
Genetic generalized	1.0			
Genetic focal	0.5 (0.1-2.0)	0.5		
Non-genetic focal*	1.3 (0.8-1.9)	0.3		
Unclassified**	1.2 (0.6-2.7)	0.6		
Remote aetiology				
No	1.0			
Yes	0.7 (0.3-1.5)	0.4		
Family history of epilepsy				
No	1.0			
Yes	0.8 (0.5-1.2)	0.3		
Febrile convulsions				
No	1.0			
Yes	0.8 (0.3-1.1)	0.5		
Neurological deficits				
No	1.0			
Yes	1.7 (0.6-4.6)	0.3		
Early treatment (before SR)				
No	1.0		1.0	
Yes	0.6 (0.4-0.9)	**0.03**	0.6 (0.4-0.9)	**0.02**
Brain imaging				
Normal	1.0		1.0	
Focal abnormality	2.1 (1.3-3.3)	0.002	2.1 (1.2-3.5)	**0.006**
Diffuse abnormality	0.5 (0.2-0.9)	0.02	0.5 (0.2-1.3)	0.1
Epileptic activity on the first EEG				
None	1.0		1.0	
GSWD	1.1 (0.6-1.7)	0.9	1.8 (0.6-5.7)	0.3
Focal ED	1.3 (0.8-2.1)	0.3	1.4 (0.8-2.6)	0.2
Slow activity	0.5 (0.2-1.3)	0.2	0.8 (0.3-2.3)	0.7
Multiple seizures at presentation				
No	1.0			
Yes	0.7 (0.3-1.3)	0.3		
State of arousal at index seizure				
Awake	1.0		1.0	
On awakening	1.8 (0.8-4.2)	0.1	2.1 (0.8-5.4)	0.1
Asleep	1.6 (0.9-2.7)	0.08	1.1 (0.6-2.0)	0.7
Identifiable modulators of index seizure				
No	1.0		1.0	
Yes	0.6 (0.3-0.9)	**0.04**	0.6 (0.3-0.9)	**0.05**
Other associated seizures †				
No	1.0			
Yes	0.8 (0.5-1.4)	0.5		

*Includes localized focal epilepsies of structural or unknown aetiology (FLE and TLE) and structural focal epilepsies that cannot be localized to a specific lobe; **uncertain whether focal or generalised; †absences, myoclonic or focal seizures presenting concurrently with or subsequently to the index seizure; CI: confidence interval; ED: epileptiform discharge; GSWD: generalised spike-wave discharge; HR: hazard risk; SR: seizure recurrence.

Supplementary table 4. Genetic epilepsies (*n*=53) based on the Cox proportional hazard model.

Characteristics	Univariable model		Multivariable model	
	HR (95% CI)	***p* value**	**HR (95% CI)**	***p* value**
Sex				
Male	1.0		1.0	
Female	0.8 (0.4-1.7)	0.6	0.9 (0.4-1.9)	0.8
Age at first seizure				
17 to <30	1.8 (0.7-4.4)	0.2	1.0 (0.4-2.9)	0.9
30 to <60	1.0		1.0	
Epilepsy syndrome				
With GTCS only	1.0		1.0	
With absences or myoclonic seizures	1.9 (1.0-3.9)	0.07	1.8 (1.1-4.0)	**0.05**
Family members with epilepsy				
No	1.0			
Yes	0.8 (0.5-1.5)	0.6		
Febrile convulsions				
No	1.0			
Yes	0.6 (0.3-1.2)	0.3		
Early treatment (before SR)				
No	1.0		1.0	
Yes	0.9 (0.6-2.6)	0.4	0.8 (0.5-2.3)	0.5
Epileptic activity on the first EEG				
GSWD	1.9 (0.7-5.0)	0.3		
Focal ED	1.0			
Multiple seizures at presentation				
No	1.0			
Yes	1.7 (0.5-5.8)	0.4		
State of arousal				
Awake	1.0		1.0	
On awakening	2.0 (1.1-6.0)	**0.05**	2.7 (1.1-6.7)	**0.03**
Asleep	-			
Identifiable modulators				
No	1.0		1.0	
Yes	0.5 (0.2-1.1)	0.1	0.5 (0.2-1.1)	0.09

CI: confidence interval; ED: epileptiform discharge; GSWD: generalized spike-wave discharge; HR: hazard risk; IGE: idiopathic generalised epilepsy; SR: seizure recurrence.

Supplementary table 5. Non-genetic focal epilepsies (*n*=97) based on the Cox proportional hazard model.

Characteristics	Univariable model		Multivariable model	
	HR (95% CI)	*p* value	HR (95% CI)	*p* value
Sex				
Male	1.0		1.0	
Female	0.6 (0.4-1.2)	0.1	0.9 (0.4-1.7)	0.7
Age at first seizure				
>60	1.0		1.0	
17 to <60	2.0 (1.1-4.0)	**0.03**	2.2 (1.2-4.3)	**0.01**
Epilepsy aetiology				
Unknown	1.0			
Structural	0.9 (0.5-1.4)	0.6		
Epilepsy aetiology (old classification)				
Remote symptomatic	0.6 (0.3-1.3)	0.2		
Not remote symptomatic	1.0			
Epilepsy type				
Focal of undetermined lobar origin	1.0		1.0	
TLE	3.0 (1.6-6.0)	**0.001**	5.7 (1.2-26.6)	**0.03**
FLE	5.1 (2.4-11.2)	**0.000**	7.4 (1.7-31.2)	**0.006**
Family members with epilepsy				
No	1.0			
Yes	0.7 (0.3-1.4)	0.3		
Febrile convulsions				
No	1.0			
Yes	0.8 (0.3-1.9)	0.6		
Neurological deficits				
No	1.0			
Yes	1.4 (0.4-4.6)	0.5		
Early treatment (before SR)				
No	1.0		1.0	
Yes	0.5 (0.3-0.8)	**0.005**	0.3 (0.2-0.6)	**0.001**
Brain imaging				
Normal	1.0		1.0	
Focal abnormality	0.9 (0.6-1.5)	0.1	1.9 (1.1-3.7)	**0.06**
Diffuse abnormality				
First EEG				
Normal	1.0		1.0	
Focal ED	1.5 (0.9-2.6)	0.09	1.8 (1.1-3.0)	**0.05**
Slow activity	0.5 (0.2-1.4)	0.2	0.5 (0.2-1.4)	0.2
Multiple seizures at presentation				
No	1.0			
Yes	0.4 (0.2-1.1)	0.1		
State of arousal				
Awake	1.0			
On awakening	-			
Asleep	1.2 (0.9-1.5)	0.2		
Identifiable modulators				
No	1.0			
Yes	0.6 (0.3-1.5)	0.3		
Associated focal seizures†				
No	1.0			
Yes	1.1 (0.6-1.9)	0.9		

CI: confidence interval; ED: epileptiform discharge; FLE: frontal lobe epilepsy; HR: hazard risk; TLE: temporal lobe epilepsy; SR: seizure recurrence; †with retained or loss of awareness, presenting concurrently with or subsequently to the index seizure.