



## Introduction

- Risk factors include Age, etiology, demographics, and pre-existing epilepsy.
- The etiology of status epilepticus is classified into 4 different categories: Acute symptomatic, remote symptomatic, progressive, and cryptogenic.
- Status epilepticus (SE) is a common pediatric neurological emergency. It is a continuous seizure lasting more than 30 minutes, or 2 or more seizures without full recovery of consciousness in between. (Kumar et al., 2014)
- Types of SE:
  - Controlled & Refractory (P. K. and R., 2019).
  - Focal & Generalized (Thomas and Cherian, 2009).

## Objectives

- To study the management of SE in pediatric patients at Sultan Qaboos University (SQUH)
- To study the complications and outcomes of SE in pediatric patients at SQUH

## Materials & Methods

A retrospective cohort study of children presenting to the emergency department and those admitted to the pediatric ward, high dependency unit (HD), and Pediatric Intensive Care Unit (PICU) at SQUH with SE.

- Data Collection:** Conducted via electronic patient records (EPR) through the TrakCare system in SQUH.
- Data Analysis:** Using the Statistical Package for the Social Sciences (SPSS) version 25 to obtain the frequencies of the different variables within the study group, with the help of descriptive statistics.
- Study Sample Size:** 93 patients.

### Inclusion Criteria

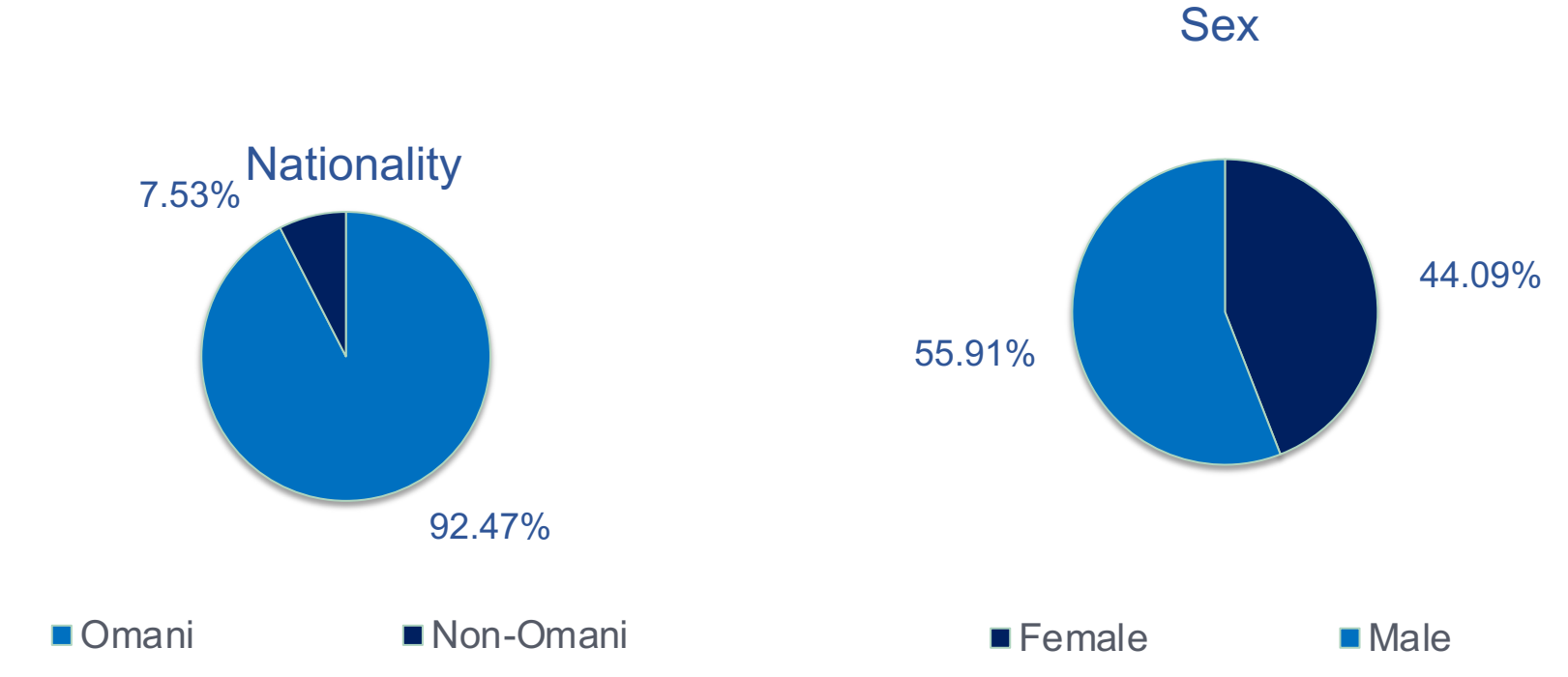
All children between the ages of one month and 12 years presenting with SE between May 2010 to May 2020

### Exclusion Criteria

Children below one month and above 12 years. Seizures lasting for less than 30 minutes

## Results

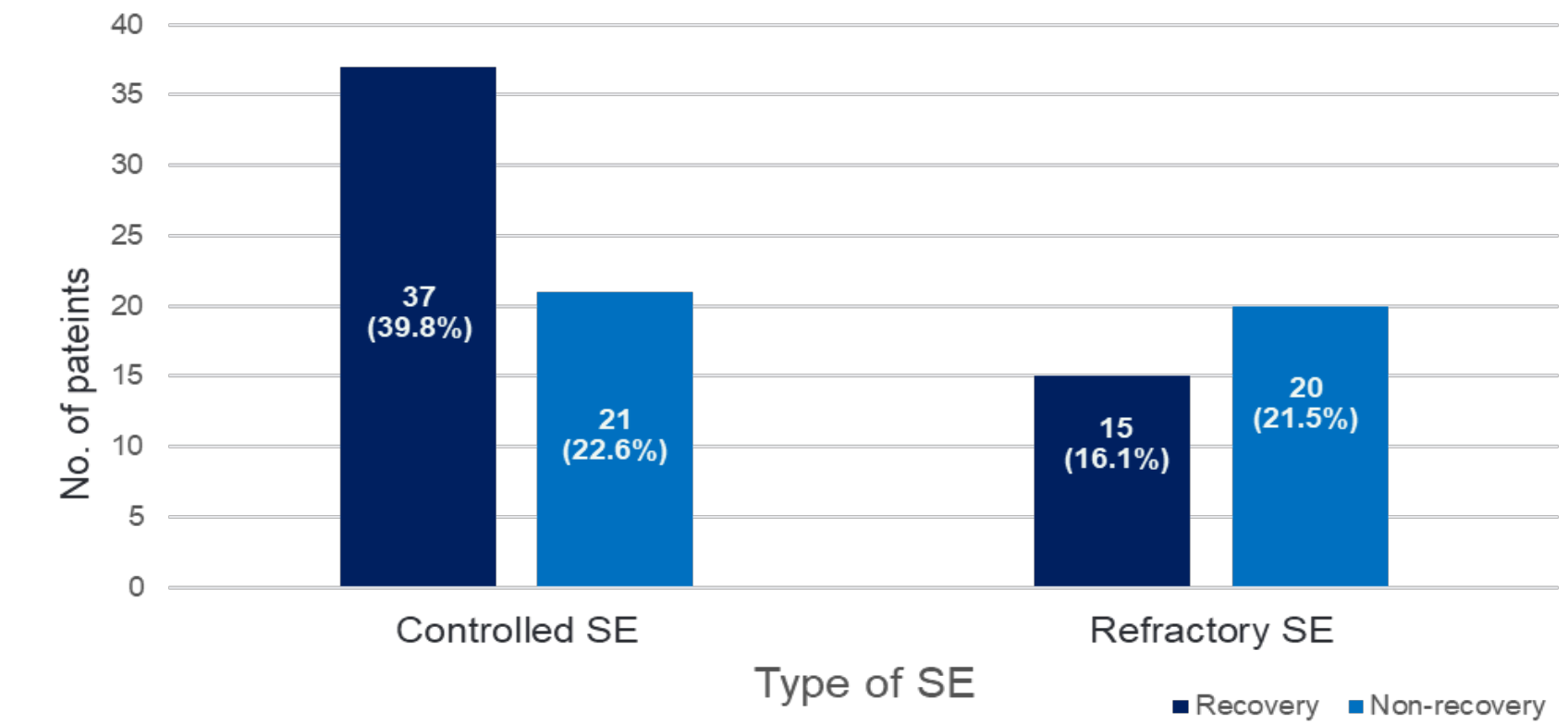
Demographics and characteristics



Drug used	1 <sup>st</sup> line n(%)	2 <sup>nd</sup> line n(%)	3 <sup>rd</sup> line n(%)
Diazepam	58 (67.44%)	3 (4.76%)	0 (0.00%)
Phenytoin	9 (10.47%)	27 (42.86%)	10 (27.78%)
Levetiracetam	4 (4.65%)	14 (22.22%)	6 (16.67%)
Midazolam	4 (4.65%)	9 (14.29%)	11 (30.56%)
Sodium Valproate	6 (6.98%)	2 (3.17%)	3 (8.33%)
Other drugs	5 (3.64%)	8 (12.70%)	6 (16.67%)

Characteristic	Controlled SE	Refractory SE
Duration to control SE in minutes	44.34 (30-80) ± 14.27	117.14 (30-600) ± 116.56 Median: 65
Duration of admission in days	5.02 (1-55) ± 9.10	7.09 (1-30) ± 7.49
With pre-existing epilepsy	48 (82.76%)	22 (62.86%)
Good recovery	37 (63.79%)	15 (42.86%)

## Results



## Conclusions

- The Median time to control SE is 45 minutes
- 26.74% of patients responded to first-line drugs, whereas 50.79% of the patients responded to second-line drugs
- The type of SE (Focal or Generalized) had no association with the outcome
- This study noted a correlation between the recurrence of SE & poor prognosis (p = 0.004).
- Recovery rates < in refractory SE in comparison to controlled SE.

## References

P. K., M. and R., K. (2019) Convulsive status epilepticus in children: clinical profile and outcome in a tertiary care hospital, *International Journal of Contemporary Pediatrics*, 6(2): 280. <https://doi.org/10.18203/2349-3291.ijcp20190093>.

MTrinka, E., Cock, H., Hesdorffer, D., Rossetti, A., Scheffer, I., Shinnar, S., Shorvon, S. and Lowenstein, D., 2015. A definition and classification of status epilepticus - Report of the ILAE Task Force on Classification of Status Epilepticus. *Epilepsia*, 56(10), pp.1515-1523.

Smith, D., McGinnis, E., Walleigh, D. and Abend, N., 2016. Management of Status Epilepticus