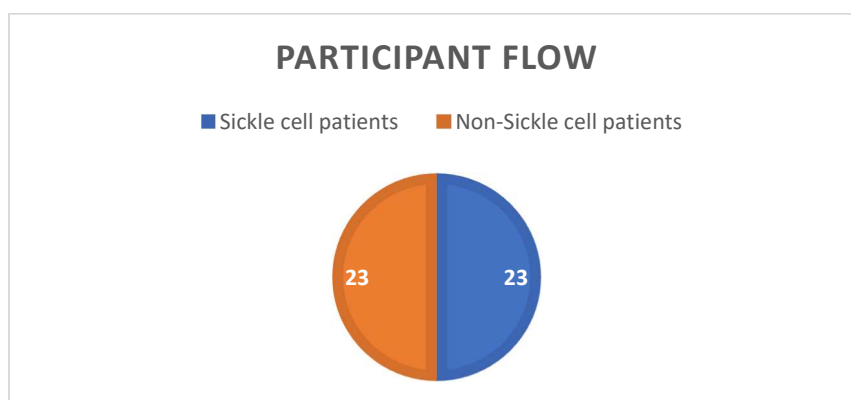


## RESULTS

- we observed and compared the pharmacodynamic responses of rocuronium after induction dose and reinjection, as well as the intubation conditions in a group of 23 sickle cell patients and a group of 23 controls, all programmed for laparoscopic abdominal surgical procedures.

-Participant flow



-There was not occurrence of adverse events during the clinical trial

-The onset time of action of rocuronium was longer in sickle cell patients [mean  $\pm$  SD (extremes)], [346.348  $\pm$  106.42 s (110-520 s)] than in the control group [150.43  $\pm$  35.62 s (83-210 s)] ( $P < 0.01$ ). Intubation conditions two "2" minutes after induction doses of rocuronium, as observed from TOF scan data, were not optimal: 21/2 in sickle cell patients and 15/8 in the control group ( $P = 0.05$ ). The clinical duration of action was shorter in sickle cell patients [19.00  $\pm$  7.01 min (13-41) min] when compared to the control group [28.96  $\pm$  6.96 min (21-48) min] ( $P < 0.01$ ). The time before the second dose of rocuronium was given, was shorter in the sickle cell patients group [27.35  $\pm$  7.96 (19-49) min] compared to the control group [9.91  $\pm$  8.71 min (30-56 min)] ( $P < 0.01$ ). The time after which the first response was observed following the second dose of rocuronium was not different in both groups. However, the time to the second response was shorter in the sickle cell patients group [32.26  $\pm$  9.34 min (17-53) min] compared to the control group [41.48  $\pm$  9.00 min (30-56 min)] ( $P = 0.003$ ).

**Table: pharmacological data and intubation conditions**

	Control group	Sickle cell patients	P Value
Intubation conditions after 2 min (Non-optimal / optimal)	15 / 8	21 / 2	0.05**
Copenhagen score (Good / Excellent)	10 / 13	7 / 16	0.328
Onset time of action (s)	150.43 ± 35.62 (83-210)	346.348 ± 106.42 (110-520)	0.000***
Clinical duration of action (min)	28.96 ± 6.96 (21-48)	19.00 ± 7.01 (13-41)	0.000***
Time to 2 <sup>nd</sup> injection (min)	39.91 ± 8.71 (30-56)	27.35 ± 7.96 (19-49)	0.000***
Reappearance of 1 <sup>st</sup> response (min)	23.13 ± 8.68 (12-41)	18.70 ± 6.14 (13-43)	0.074
Time to 3 <sup>th</sup> injection (min)	41.48 ± 9.00 (30-56)	32.26 ± 9.34 (17-53)	0.003**

*NB: mean ± standard deviation (Minimum- Maximum); \*\*\* and \*\* are significant at 1% and 5% respectively.*