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Introduction:
High Flow Nasal Oxygen (HFNO) is a relatively new therapy. This retrospective audit reviews the use of HFNO in relation to local guidelines in a critical care unit following its introduction.

Methods:
Patients were identified by reviewing ICU charts between August 2015 and September 2016. Data was collected from electronic patient records and the ICNARC database. This included patients’ age, indication and duration of HFNO, mode of oxygen therapy and blood gases before, during and after. HFNO therapy interrupted by >24 hours were analysed as separate episodes. From the 47 patients identified, there were 53 episodes. These were subdivided into the respiratory pathology group (RPG) or post-extubation elective group (EG) based on the indication for HFNO therapy. Two episodes were excluded from the analysis due to the indication for HFNO.

Results:
The median age of patients was 67 years. The mean duration of HFNO was 2.56 days. The mean APACHE score in RPG & EG were 17 and 18 respectively. In the RPG, 59.1% were weaned to Nasal Speculum (NS) or to Room Air (RA) with a further 13.6% to Face mask (FM). The mean, median(SD) PO2 noted before & during the HFNO therapy were 10.3, 9.45(2.58) & 10.07, 9.46(2.08) KPa. The mean, median(SD) of pH was 7.26, 7.45(1.1) pre HFNO, changing to 7.44, 7.46(0.05) on HFNO. In the EG, 57.1% were weaned to NS and 14.3% to FM. The mean, median(SD) of PaO2 before and during the therapy were 10.72, 10.1(3.66) & 9.08, 9.2(1.96) KPa. The mean, median(SD) of pH was 7.43, 7.45(0.05) pre HFNO changing to 7.47, 7.47(0.07) on HFNO. In 15% of episodes HFNO was used despite contraindications with no adverse events.

Conclusion:
In most episodes, HFNO was used according to the local guidelines with no reported adverse events. More than 50% in both groups were successfully weaned to NS or RA. Only 27.3% in RPG and 28.6% in EG were escalated to NIV and Intubation. Despite the small cohort and multiple confounding factors, the audit has shown a general trend towards benefit from HFNO.