

Although serious adverse incidents are usually rare, isolated events, they nonetheless tend to recur, due to failure to identify system errors or implement appropriate mitigation measures. In 2015, NHS-E extended the WHO surgical checklist to include endoscopy and from 2018 took over the SAI mandatory reporting framework from DHSC. The **aim** of this observational cohort study was to quantify SAIs in endoscopy and identify potential learning opportunities to reduce harm arising from endoscopy.

Methods: Potential cases from NHS-E StEIS database identified by key words (endo, colon, OGD, gastro, flexi, ERCP) with appropriate Boolean operators from 1/7/2022-30/6/2023. Exclusion criteria: any events not directly related to an endoscopy procedure. Incidents reviewed and classified by timing and relationship to procedure, pathway (upper, lower, hepato-biliary), outcome (never event/death/significant harm) and by Region.

Results: From 371 potential incidents, 190 were identified as being directly related to endoscopy in patients (54% male, median age 69 (range 13-93yr old) over the 1yr period, of which 66 (33%) were either death (n=45) or Never Events (n=17). Deaths were related to Lower GI (n=18), Upper GI (n=16) or ERCP/HPB (n=11) procedures/pathways. All Never events were due to wrong orifice / wrong patient incidents. More than half the SAIs were due to issues with scheduling follow up or surveillance procedures (98/190, 52%). Others were perforation (n=19, oesophagus n=10, colon n=9), poor team working (n=12), delayed diagnosis (n=10) and other (n=51). Analysis by Region showed significant differences in SAI event rates (see table).

Region	Endoscopy related SAI (n)	Total Endoscopy Activity 2022/3	Deaths (n)	Rate of serious incidents per 100,000 procedures (95% CI)	Rate of deaths per 100,000 procedures (95%CI)
Midlands	52	446,080	11	11.7 (8.7-15.3)	2.5 (1.2-4.4)
North West	44	365,972	10	12.0 (8.7-16.4)	2.7 (1.3-4.4)
London	27	403,944	8	6.7 (4.4-9.7)	2.0 (0.9-3.9)
South East	26	358,688	6	7.2 (4.7-10.6)	1.7 (0.6-3.6)
North East & Yorkshire	17	435,082	3	3.9 (2.2-6.2)**	0.68 (0.14-2.0)
East of England	15	334,927	5	4.5 (2.5-7.4)	1.5 (0.5-3.4)
South West	9	289,490	2	3.1 (1.4-5.9)**	0.69 (0.08-2.5)
England	190	2,634,183	45	7.2 (6.2-8.3)	1.7 (1.2-2.2)

** p<0.05

Conclusion: Never Events are still occurring in endoscopy departments in English hospitals, despite the implementation of WHO check-lists. More robust processes to support correct scheduling of procedures are needed and should be included in the JAG accredited admin and clerical training programme. There appear to be significant differences in the rate of SAIs between regions, which implies that there are lessons to be learnt and opportunities to avoid mistakes being repeated.