

## AB220. Closing the audit loop on inadvertent parathyroidectomy during thyroid surgery—how are we doing at a specialist endocrine surgery centre?

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**Background:** One of the common complications associated with thyroidectomy is transient or permanent hypocalcaemia. Hypocalcaemia risk is directly related to the incidence of inadvertent parathyroidectomy (IP). Some of the published literature has shown variable incidence of IP ranging from 11.3 to 28 percent, although most surgeons are unaware of their own IP rate. Aim of this retrospective study was to estimate the incidence of IP at our specialist high volume endocrine surgery centre.

**Methods:** We published a retrospective three audit at our department between January 2012–December 2014, which revealed the IP rate of 17.3%. After that, we prioritized visual attention to parathyroid tissue intra-operatively with a view to reduce the IP incidence. On closure of audit loop,

all consecutive cases of hemi and total thyroidectomies performed at Cork University Hospital for benign and malignant conditions between 1/10/2016 and 30/09/2019 were retrospectively reviewed.

**Results:** During this 3-year period, a total of 237 patients underwent thyroidectomies (79 per year). Hemi-thyroidectomy constituted majority of these surgeries (58%), while total thyroidectomy (36%), completion thyroidectomy (5.5%) and isthmusectomy (0.5%) were the others. Mean age of patients was 55.85 years (range, 24–91 years). Majority (86%) of these patients were females. A total of 35 patients had IP, thus giving an overall incidence of 14.8%, a significant 2.5% reduction from the first audit. Except one patient where two parathyroid glands were inadvertently excised, all other 34 patients had one parathyroid gland found in their thyroidectomy specimens. On further breakdown of these 35 patients who had IP, 58% of patients had total while 42% had hemi-thyroidectomy.

**Conclusions:** Incidence of IP at our specialist high volume endocrine surgery centre has reduced significantly on closing the audit loop and is comparable to the best international figures.

**Keywords:** Hypocalcaemia; inadvertent parathyroidectomy (IP); thyroid surgery

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