# Swabs to Withhold Irrigation and Promote Surgical Efficiency: A prospective pilot study protocol

Northern Health

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## Background

In elective laparoscopic cholecystectomy (LC) for biliary colic, the routine usage of disposable suction/irrigation devices (SIDs) potentially generates unnecessary environmental and economic costs. Ideas relating to carbon neutrality and measurement of cost are gaining traction.[1]

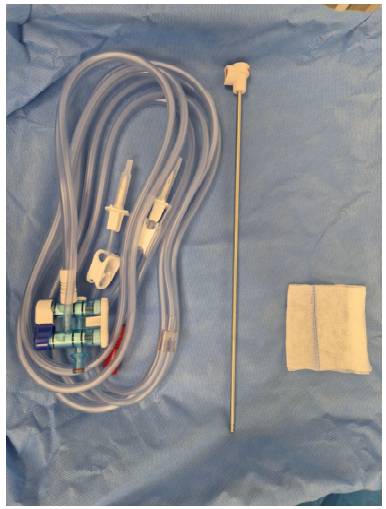

Fig 1: A pre-operative set up from Left to Right: suction irrigation device (SID) set; SID shaft; Raytech swab (surgical swab)

## Methodology

Twenty (20) consecutive adult patients undergoing elective LC for biliary colic at Broadmeadows Hospital (BHS) within Northern Health will be recruited. Once routine laparoscopic ports are placed, one fabric swab will be placed within Morrisons pouch, and for the duration of operating time, the surgeon may open a SID if clinically indicated.

The primary outcome is the proportion of surgical cases completed without SID usage.

Secondary data will include demographics, intraoperative duration, intraoperative instruments used, post operative complications and qualitative assessment of surgeon satisfaction with swab usage

## Results

Data collection for this prospective pilot study is in progress.
Results will quantify the rate of SID-free procedures, identify patterns in instrument usage and quantify, if any, post operative surgical complications for any elective cases via Clavien-Dindo scale.

Results will additionally measure subjective surgeon satisfaction with SID versus swab usage.

## Conclusion

This study aims to implement a simple, potentially impactful intervention aimed to reduce surgical waste and economic costs. The findings will inform future sustainability-focused protocols within general surgery.

1. Rizan C, Bhutta MF. Environmental impact and life cycle financial cost of hybrid (reusable/single-use) instruments versus single-use equivalents in laparoscopic cholecystectomy. Surg Endosc. 2022 Jun;36(6):4067-4078. doi: 10.1007/s00464-021-08728-z. Epub 2021 Sep 24. PMID: 34559257; PMCID: PMC9085686.