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The global embrace of SipTilSend and lessons for de-implementation in perioperative care

For over eight decades, perioperative fasting has been shaped by 'nil by mouth from midnight' to reduce pulmonary aspiration during anaesthesia¹. However, prolonged fasting contributes to complications such as anxiety, dehydration, hypotension, delirium, post-operative nausea and vomiting, and acute kidney injury, especially in older or frail patients^{2,3}. Recent studies have demonstrated that consuming clear fluids up to two hours before surgery is safe and improves patient comfort and post-operative recovery³⁻⁵.

Current guidelines recommend fasting from solids for six hours and clear fluids for two hours, but clinical practice has continued to fast patients from midnight, often resulting in excessive fluid restriction^{6,7}. Efforts to implement more contemporary perioperative fasting practices have largely been ineffective. Surgical scheduling complexities such as theatre cancellations, emergency caseloads and resource constraints often mean patients fast for hours, or even days, longer than required. These logistical pressures are reinforced by outdated policies and habitual reliance on conservative practices.

This editorial reflects a growing consensus that a change is needed. The persistence of prolonged fasting practices, unsupported by current evidence, highlight a need to re-examine how perioperative guidelines are translated into routine care. Emerging innovative models that support more flexible fluid intake offer a pathway towards patient-centred practice. One model, 'SipTilSend' has gained global traction in perioperative services⁸⁻¹⁰. This model allows patients to drink clear fluids (up to 200ml/hour) until they are sent to the operating theatre, substantially reducing perioperative fasting durations and improving patient satisfaction without compromising safety.

Understanding the failure to implement reduced fasting protocols

Reducing pre-operative fluid fasting to two hours has been difficult to implement in clinical practice due to structural, procedural and behavioural factors. A commonly raised issue is the need to accommodate real-time changes in surgical lists due to emergency cases, overruns or staffing limitations. Fasting instructions tend to revert to standardised midnight cut-offs for solids and fluids to simplify coordination and manage uncertainties. This is further reinforced by persistent knowledge gaps in understanding gastric physiology. Recent studies have demonstrated that clear fluids typically empty from the stomach within 20 to 30 minutes, with gastric residual volumes returning to baseline rapidly after ingestion¹¹⁻¹³.

In complex healthcare systems, fragmented communication can contribute to inconsistent implementation. Pre-operative communication involves anaesthetic, surgical and nursing teams, who may interpret guidelines differently. In the absence of unified protocols, patients receive varied instructions depending on provider, department or procedure type. These inconsistencies are particularly evident in sedated and diagnostic

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procedures, where fasting durations often lack standardisation and are based on routine rather than risk¹⁴. In services where fasting guidelines have not been updated, there is little support for clinicians wanting to provide more liberal perioperative fluids, and instructions default to conservative practices. Anaesthetists have expressed concern about medico-legal accountability when implementing shorter fasting durations without formal policy backing¹⁵. Staff education is also inconsistent, as training can be difficult to standardise and knowledge is often passed on informally, particularly in settings with high turnover among clinicians.

The global success of SipTilSend

First implemented in Tayside Hospital, Scotland, SipTilSend offers a structured alternative to existing fluid fasting practices¹⁰. This approach means fasting instructions can easily accommodate surgical scheduling changes. SipTilSend's clarity and consistency have supported widespread adoption across perioperative services, particularly where efforts to apply two-hour fluid fasting protocols have been difficult to sustain in routine practice¹⁶.

SipTilSend's success can be partly attributed to its reduction in cognitive and procedural demands often associated with guideline implementation. In high pressure perioperative settings, protocols that required minimal interpretation are more easily integrated into routine workflow. The simple messaging, combined with the expanding evidence base around rapid gastric emptying of clear fluids in both adult and paediatric populations¹⁷, has reframed perioperative fasting as a procedural coordination task rather than a safety protocol with a fixed, time-based cut-off. The SipTilSend model's low complexity, clarity of instruction and compatibility with existing perioperative workflows means it aligns with key principles of implementation science. These features support consistent application across teams and address the variability that had previously limited the implementation of fluid fasting guidance.

It is important to recognise that SipTilSend was adopted in a period when perioperative services were significantly constrained across the world. The

mounting pressures to address surgical backlogs after the COVID-19 pandemic prompted Tayside Hospital's initial implementation of the SipTilSend model¹⁰. In Australia, interest in the model has intensified during a national intravenous fluid shortage, which highlighted the fragility of supply chains and prompted reconsideration of intravenous hydration practices¹⁸. These resource constraints created the conditions to support new care models that have the flexibility to build resilience and efficiency in perioperative services.

Multidisciplinary collaboration has played a central role in the implementation of SipTilSend. Anaesthetic and perioperative nursing teams worked together to align workflows, adapt protocols and support operational consistency¹⁰. Professional bodies and quality improvement networks have provided advocacy and policy support, which enabled broader adoption and alignment with institutional standards¹⁶. In our institution, implementation was also supported through patient-centred codesign, especially in adapting the instructions provided to patients. This approach ensured that protocol development reflected patient preferences as well as clinical considerations.

Despite its widespread uptake, several barriers continue to affect the consistent implementation of SipTilSend. The definition of 'clear fluids' remains inconsistent, and traditional terminology such as 'nil by mouth' does not distinguish between fluid and solid food fasting. The introduction and clarification of new terms has been necessary to support accurate communication. In our organisation, patient information states 'drink water until your surgery', and we have used the term 'fast STS' to designate the use of the SipTilSend protocol, and 'strict NBM' for patients exempt from the SipTilSend model. In some sites, phased introduction has led to confusion about which patients should follow the SipTilSend protocol and which shouldn't. Our organisation overcame this through a whole of hospital implementation, supporting change by clear messaging across all wards.

Reframing the question to 'who should fast?' instead of 'who could have clear fluids?'

Emerging literature suggests that the number of patients requiring absolute fasting is smaller than previously assumed. These include patients undergoing gastrointestinal interventions and with gastric emptying disorders such as severe reflux. Rather than asking 'who can safely have clear fluids before surgery?', the more appropriate question might be 'who must absolutely fast?'. This subtle shift supports risk-based approaches that prioritise individualised care over uniform restrictions and invites deeper evidence-based scrutiny of long-established fasting practices. Further research and professional consensus are needed to refine these risk-based pathways.

That SipTilSend has been embraced globally illustrates what is possible when clinical evidence, health system priorities and practical implementation align. The success of SipTilSend prompts a broader discussion about how entrenched clinical behaviours can be replaced with more effective, evidence-aligned approaches to care. Future progress will depend on supporting sustained practice change and reducing barriers to implementation. This includes identifying unwarranted practices, updating and regularly reviewing local fasting policies, and ensuring that guidance is responsive to emerging evidence. Clear protocols, interdisciplinary collaboration and visible leadership are important strategies to support successful clinical transition. SipTilSend has shown how meaningful change can come from rethinking the ordinary, responding to evidence and prioritising person-centred, individualised care.

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