

# Patient adherence to preoperative fasting and medication instructions: Do we make the cut?

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## Background

Patient adherence with preoperative fasting and medication instructions is crucial in avoiding unnecessary delays or cancellations to surgery. Studies have shown that despite thorough Pre-Admission Clinic assessment and provision of written instructions, approximately 20-35%<sup>1,2</sup> of patients still fail to comply with fasting and medication advice. Non-adherence to medication instructions can be failure to withhold required medications such as anti-coagulants, or it can be failure to take necessary medications such as anti-hypertensives or asthma inhalers.<sup>2,3</sup> The latter has been shown to influence complication rates in the post anaesthetic care unit (PACU).<sup>2</sup> Non-adherence to fasting instructions can be failure to withhold solids or liquids after the pre-determined interval before surgery,<sup>4</sup> but it can also be failure to consume adequate fluid prior to the pre-determined interval resulting in dehydration, hypovolaemia and hypotension.

## Aim

To assess patient adherence to preoperative fasting and medication instructions provided at their pre-admission appointments.

## Methods

- Two week prospective review of elective patients presenting to the Royal Brisbane and Women's Hospital Surgical Day Care Unit pre-operatively on the day of surgery.
- Patients were asked about their regular medications, what had been taken on the morning of surgery, as well as any withheld medications and the date and time of the last dose.
- Patients were also asked about the last time any solid food, non-clear fluids and clear fluids were consumed.
- Information provided by patients was compared with the instructions documented in the patient's record at time of the pre-admission appointment, and discrepancies noted. Data relating to patient demographics, whether the patient was of Non English Speaking Background (NESB) and type of Pre-Admission Clinic review was also captured.
- Operation records were reviewed retrospectively to determine whether patient non-adherence had any impact on surgery cancellations or delays.
- Patients not taking any medications were excluded from the study.

## Results

- 76 patients were reviewed during the study period
  - 32 patients (42%) had adhered to both fasting and medication instructions
  - 52 patients (68%) had adhered to their medication instructions
  - 50 patients (64%) had adhered to their fasting instructions.

**Table 1: Patient demographics with respect to adherence to preoperative medication instructions**

Demographic	Adherent cohort	Non Adherent cohort
Number of patients	52	24
Mean age, years (range)	64 (34-95)	64 (21-86)
Gender, n (%)		
-Male	22 (59)	15 (41)
-Female	30 (76)	9 (23)
NESB	6	4
Number of current medications, mean (range)	6.5 (1-18)	7.6 (2-15)

## Conclusion

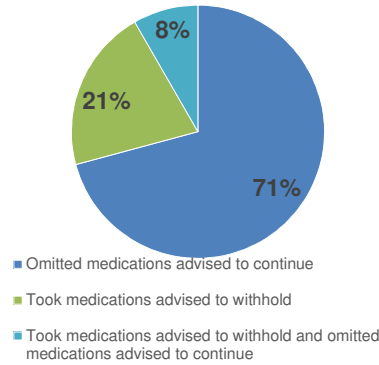
A significant proportion of patients are non-adherent to the preoperative fasting and medication instructions provided at their pre-admission appointments. Patients receiving pharmacist review at their pre-admission appointment showed higher rates of adherence to their preoperative medication instructions. Omission of regular medication accounted for the majority of patient non-adherence. Further studies are required to determine factors contributing to patient non-adherence and how this can be improved.

## Contact Us

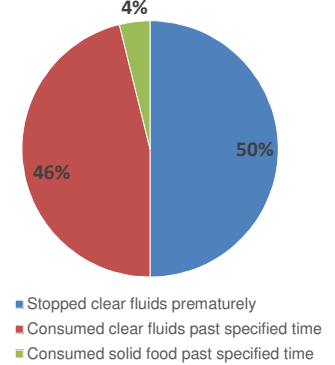
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**Figure 1: Types of patient non-adherence to preoperative medication instructions (N=24)**

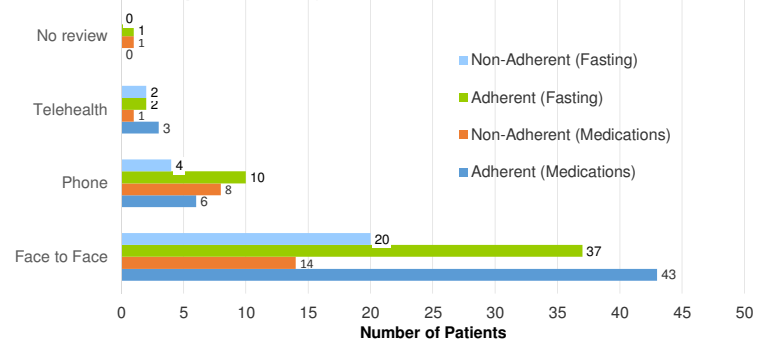


**Figure 1: Types of patient non-adherence to preoperative fasting instructions (N=26)**



- Anti-hypertensives and proton pump inhibitors comprised the majority of medicines omitted.
- No surgery was cancelled as a result of patient non-adherence, however two patients required intervention for hypertension and reflux respectively, prior to proceeding for surgery.
- One patient required nebulised salbutamol postoperatively, following omission of their regular Ultibro® inhaler before surgery.
- One patient suffered excessive bleeding during surgery as a result of not withholding their enoxaparin at the correct time interval before surgery.

**Type of Pre-Admission Clinic review and adherence to preoperative fasting and medication instructions (N=76)**



- All telephone pre-admission reviews are currently conducted by nursing staff only. Pharmacists are not currently conducting telephone reviews unless a referral is made.

**Impact of Pre-Admission Clinic pharmacy review on adherence to preoperative medication instructions (N=76)**

