

# A System By The Nurses, For the Nurses – NGEMR Lumens System Enhancements

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## Aim

Our objective was to further develop and tailor the Lumens system to deliver better and safer care to our patients.

## Background

The Next Generation Electronic Medical Records (NGEMR) was an initiative launched by the Ministry of Health (MOH) to consolidate and centralise medical records in Singapore. Lumens is the endoscopy-specific module. Lumens boasts numerous advantages to the delivery of endoscopic care in Singapore. Nonetheless, we saw an opportunity to further develop Lumens, to fully realise and utilise its potential.

After trial and careful examination, several opportunities for improvement were identified. Potential improvements to the system were then discussed and proposed to the process analyst. Cluster support and agreement were acquired. Subsequently, these modifications were built into Lumens by the NGEMR team.



## Team Members

Name	Designation	Department
Nurul Emylia Binte Mohamed Jufferie	Senior Staff Nurse	Endoscopy Centre
Mambulao Gliza Jane Gono	Senior Staff Nurse	Endoscopy Centre
Sathiya Soorian	Senior Staff Nurse	Endoscopy Centre
Kendrick Nigel Co Tan	Assistant Director	Peri-Operative Service

## Interventions / Implementation

**(1) Allowable Search Period Extension for Track and Trace Purposes**

Records of consumables and equipment used on a patient can now be **traced up to 1 year**

**(2) Helicobacter Pylori (HP) Test and Result Icon**

indicates that the **test has been carried out**.  indicates that the **result has been updated**

**(3) After Visit Summary (AVS) Report Edited Alert Icon**

indicates a **change** in the AVS

**(4) Smart Text Function for nursing documentation**

A unique **template** for documentation is **auto-generated**

Does the patient have any Drug, Latex, Plaster, and/or Food allergies? (Yes No 777151207)  
No 777151207  
Premedication administered? (Yes No NA 29880)  
Pre-procedure education given? (Yes No NA 29882)

Does the patient have any AV fistula / graft? (Yes No 777151207)  
No 777151207  
Blood availability / standby? (Yes No NA 29880)  
Does the patient have any metal implant? (Yes No 777151207)  
Is bowel preparation instituted? (Yes No NA 29880)  
If applicable, how much bowel preparation is instituted? \*\*\*  
What is the bowel output? \*\*\*

Does the patient have any heart problems as such:  
a) Heart Attack or Angina or Chest Pain? (Yes No 777151207)  
b) Permanent Pacemaker/Automated Implantable Cardio Defibrillator? (Yes No 777151207)  
c) Weak Heart or Heart Failure? (Yes No 777151207)

### ENDO EQUIPMENT PROCEDURE ROOM 1

Video Systems, Endoscopic (CV-290) - SIN: 7724436  
Light Sources, Fiberoptic, Flexible Endoscopic (CLV-290SL) - SIN: 7728218  
Monitors, Video (CEV-262H) - SIN: 7754928  
Monitors, Video (MLW 2627C-DC) - SIN: UAAC6366  
Regulators, Suction (ISU (Intermittent Suction Unit)) - SIN: GFFP00043  
Regulators, Suction (ISU (Intermittent Suction Unit)) - SIN: GFFP00032

### UREA BREATH TEST (UBT) / H. PYLORI BREATH TEST (HPBT) REQUEST FORM

#### PREPARATION ADVICE FOR PATIENT

Please stop the following medications prior to UBT / HPBT:

To Stop 4 Weeks Before UBT / HPBT:  
 All Antibiotics including  
- Metronidazole  
- Clarithromycin  
- Amoxicillin  
- Tetracycline

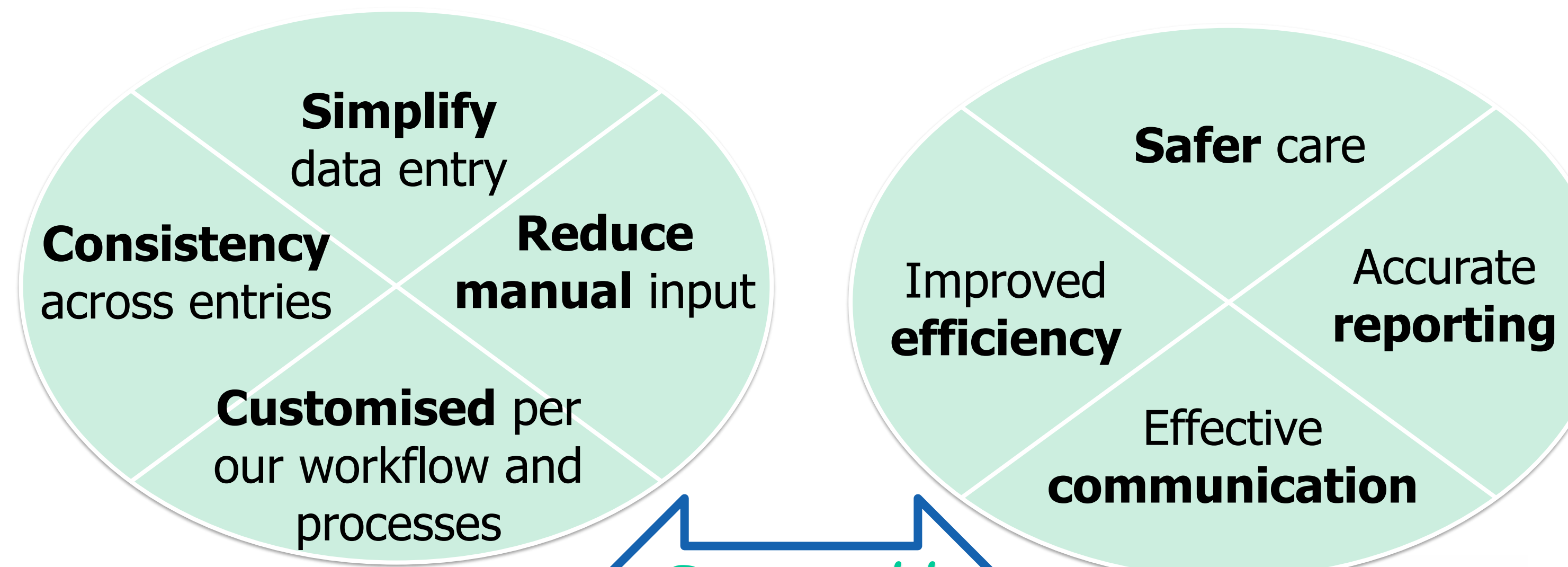
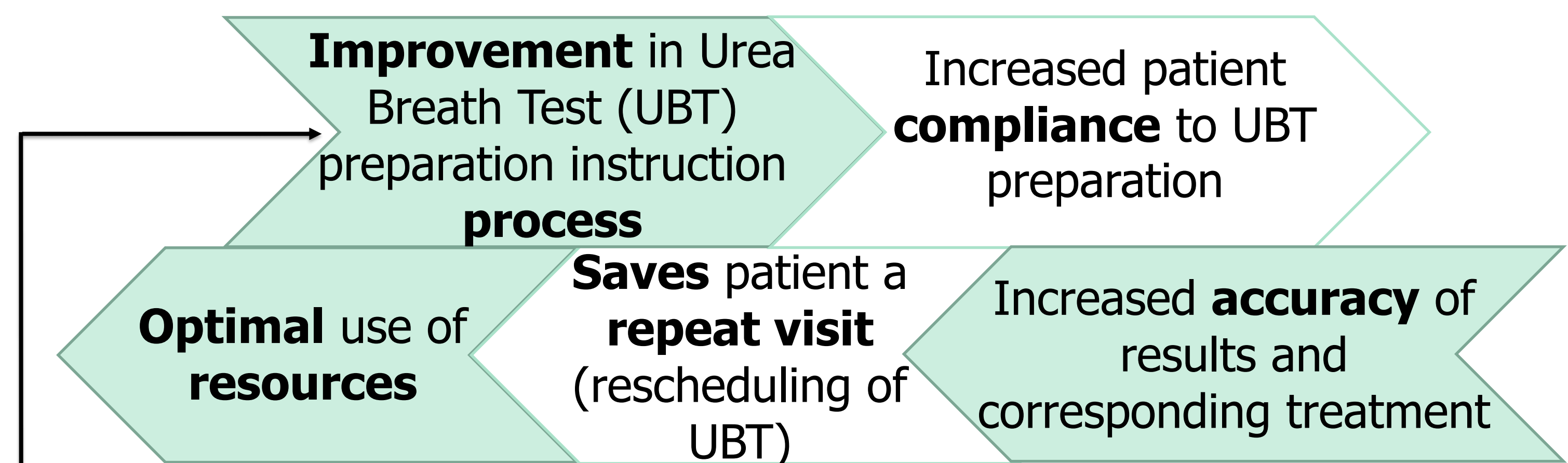
To Stop 2 Weeks Before UBT / HPBT:  
 Proton Pump Inhibitor (PPI) such as:  
- Pantoprazole (Pantoloc)  
- Rabeprazole (Aciphex)

## Onward 2026

### Improving & Sustaining Quality & Safety

INTERVENTION	Affected patients can be <b>identified</b>	Rendered <b>appropriate care</b>
1	Removes <b>human factor</b> <i>i.e.</i> reliance on nurse's memory	Facilitates <b>prompt reporting</b> and <b>treatment</b>
2	Alerts nurses of <b>changes</b> in the AVS	<b>Correct</b> and <b>latest</b> care plan can be carried out
3	Helps ensure that <b>crucial</b> information is not missed out	Reduce <b>fatigue</b> from unnecessary manual input
4		

## Results & Outcomes



**Overall**



**PROJECTED COMBINED MANPOWER TIME SAVINGS = 4, 167 HRS/2.60 FTE\***

**MANPOWER COST SAVINGS OF ~\$241K/YEAR\*\***

## Conclusion

Patient safety and the efficiency of our daily operations was improved. Endoscopy centres using the Lumens system in future may also benefit from these developments.

\*1 FTE = 1600 hrs (Based from Finance/HR) \*\*Manpower cost = FTE savings x Average norm cost of SN & SSN (Data from Finance)