

Project Title

Improving Update of O&G Discharge Bundle

Project Lead(s) and Members

Project lead(s): Dr Kanneganti Abhiram; Subashini Gunasegaran; Tiffany Valencia Puspita; Sister P Stella Mary

Project members: Dr Shwetha Shanmugam; Dr Lim Tak Yein; Ng Kai Xin, Woon Chin Menn, Ng Jian Xiong, Michelle Tan Pei Yee; Sister Leta Loh Wei Ling, Sister Linda Lim, Sister Suzana binte Abdul Rahman, Sister Siti Ihdinaa binte Rooslee, Zuriah Binte Jemani, Chua Ee Ling, Keerthana D/O Mayalaggan, Rashidah Bte rahmat, Syazwani Binte Sufri

Organisation(s) Involved

National University Hospital

Healthcare Family Group(s) Involved in this Project

Medical, Nursing, Pharmacy

Applicable Specialty or Discipline

Obstetrics & Gynaecology

Project Period

Start date: Nov 2022

Completed date: Apr 2023

Aims

To increase the OG discharge bundle uptake from 50% to $\geq 70\%$ amongst eligible patients within 6 months

Background

See poster attached/ below

Methods

See poster attached/ below

Results

See poster attached/ below

Lessons Learnt

- Discharge process improvements require multidisciplinary inputs and cooperation
- Nursing empowerment is the most important goal of any improvements to ward-based processes
- Identification of the right KPI and regular, almost monthly auditing is required to calibrate upgrades with subsequent feedback to patient-facing HCW
- Discharge pathway improvements should systematically focus on packages that address the largest group of patients with careful consideration of significant minorities while avoiding excessive variation.

Conclusion

See poster attached/ below

Additional Information

Accorded the NUH QIX Award* (Merit) Winner for period Jan-Apr 2023

**Quality Improvement Award for Process eXcellence & Service eXperience*

Project Category

Care & Process Redesign

Value Based Care, Discharge Planning, Access to Care, Turnaround Time

Keywords

Uptake Rate, Postnatal, Medication Dispensing

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Incredible Care QIX Award (Process Excellence)



Project Title no. 3 : Improving uptake of O&G Discharge Bundle

Department: Obstetrics & Gynaecology

Period: Nov'22 – Apr'23

Facilitators/Author: Dept of O&G: A/Prof Mahesh Choolani, Dr Arundhati Gosavi Tushar, Prof Mary Rauff
Pharmacy: Lim Siew Woon

Sponsors (HODs): Dept of O&G: A/Prof Mahesh Choolani
Pharmacy: Lim Siew Woon

Team Leader/s: Dept of O&G: Dr Kanneganti Abhiram
Pharmacy: Subashini Gunasegaran, Tiffany Valencia Puspita
Nursing: SNM P Stella Mary

Team Members: Dept of O&G: Dr Shwetha Shanmugam, Dr Lim Tak Yein
Pharmacy: Subashini Gunasegaran, Tiffany Valencia Puspita, Ng Kai Xn, Woon Chin Menn, Ng Jian Xiong, Michelle Tan Pei Yee
Nursing & Support: SNM P Stella Mary, SNE Leta Loh Wei Ling, NM Linda Lim, NM Suzana binte Abdul Rahman, NC Siti Ihdinaa binte Rooslee, Zuriah Binte Jemani, Chua Ee Ling, Keerthana D/O Mayalaggan, Rashidah Bte rahmat, Syazwani Binte Sufri

A. Define the Problem (PLAN)

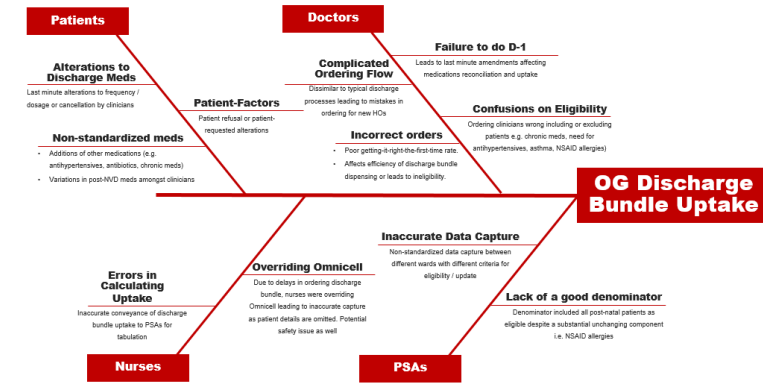
- The OG Discharge bundle was launched in July 2019 to improve efficiency of early inpatient discharges and bed turn-around time for postnatal patient who comprise a substantial proportion of O&G discharges.
- Despite an initial target of 70% uptake, there was only a small increase from 20% to 50% uptake between 2019 and 2020 after the first bundle enhancement was instituted.
- This QIP was conducted to perform a systematic root cause analysis of the factors contributing to low uptake rates and to formulate sustainable corrective steps.

B. Goal (PLAN) Set SMART goals | Specific, Measurable, Achievable, Relevant, Time-based |

To Increase the OG discharge bundle uptake from 50% to $\geq 70\%$ amongst eligible patients within 6 months

Month	% Uptake
May'22	45
June'22	48.3
July'22	52.1
Aug'22	42
Sept'22	55.6
Oct'22	56.8

C. Problem Analysis (PLAN) Gap Analysis



D. Interventions & Action Plan (DO)

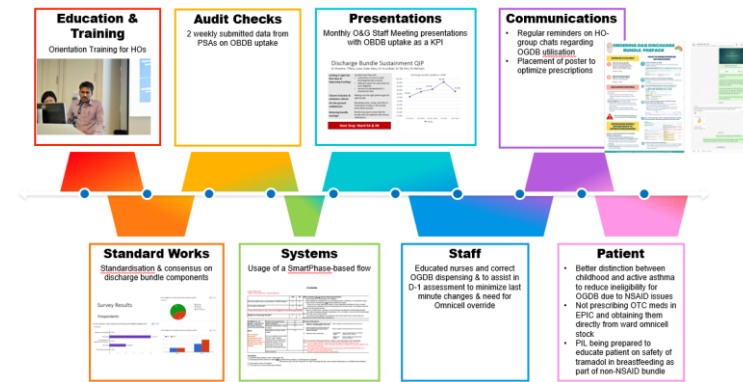
SN	Description	People responsible	Date of implementation
1	Reducing unnecessary reduction in uptake arising from OTC & chronic meds by educating HOs that • OTC meds (e.g. Dermatec, Lanolin cream, Sitz bath) do not need to be prescribed • Chronic meds can be "Continued" on EPIC instead of being prescribed again unless more supply requested by patients	Ms Subashini & Tiffany	Oct'22
2	Working with nurses to improve dispensing OGD • Avoiding Omniceil overrides & explaining importance • Standardising reporting of OGD uptake figures to PSA	SNM Mary Stella	Nov'22
3	Improving prescriber training and familiarity to OGD prescribing pathway by • Creating a SmartPhrase checklist for HOs to keep track of pre-discharge agenda with built-in instructions on how to order the discharge bundle & assess eligibility • Orientation at start of HO posting on how prescribe discharge bundle (See Appendix)	Drs Abhiram & Shwetha	Oct'22
4	Continual reminder to prescribers to use above SmartPhrase checklist and actively assess eligibility & optimize uptake for OGD • Strategic poster placement in MO Rooms • Continual reminders via Group Messaging with Hos • Peer-to-peer reminder for OGD utilization	Drs Abhiram & Shwetha	Oct'22
5	Continued reminders to senior doctors to facilitate OGD uptake by minimizing variation in discharge meds for routine postnatals • Avoiding Danzen, other NSAIDs, different dosing / duration preferences • Obtaining consensus on distinction between active and childhood asthma to avoid unnecessary exclusion of patients from OGD due to NSAID concerns	Drs Abhiram & Arundhati	Feb'23
6	Improving visibility of whether OGD to be dispensed or not for nurses by looking at AVS by adding "O&G Bundle" wording on OGD items in discharge Rx & AVS (See Appendix)	Ms Subashini & Tiffany	Oct'22
7	Creation of non-NSAID bundle to further increase pool of eligible patients	Drs Abhiram & Arundhati Ms Subashini	Feb'23

E. Benefits / Results (CHECK)



F. Strategy for Spreading/ Sustaining (ACT)

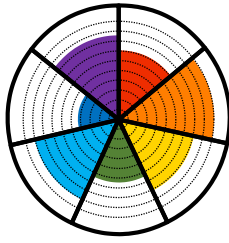
What actions are required for continuous improvement? How will the results be sustained for the long run? Will the project be spread to other areas



A. Define the Problem (PLAN)

- The OG Discharge bundle (OGBD) was launched in July 2019 to improve efficiency of early inpatient discharges and bed turn-around time for postnatal patient who comprise a substantial proportion of O&G discharges.
- From QIP results in 2020, data shows that O&G Discharge Bundle does shorten the discharge waiting time and improve the bed turn-around time.
- Despite an initial target of 70% uptake, there was only a small increase from 20% to 50% uptake between 2019 and 2020 after the first bundle enhancement was instituted.
- This QIP was conducted to perform a systematic root cause analysis of the factors contributing to low uptake rates and to formulate sustainable corrective steps.

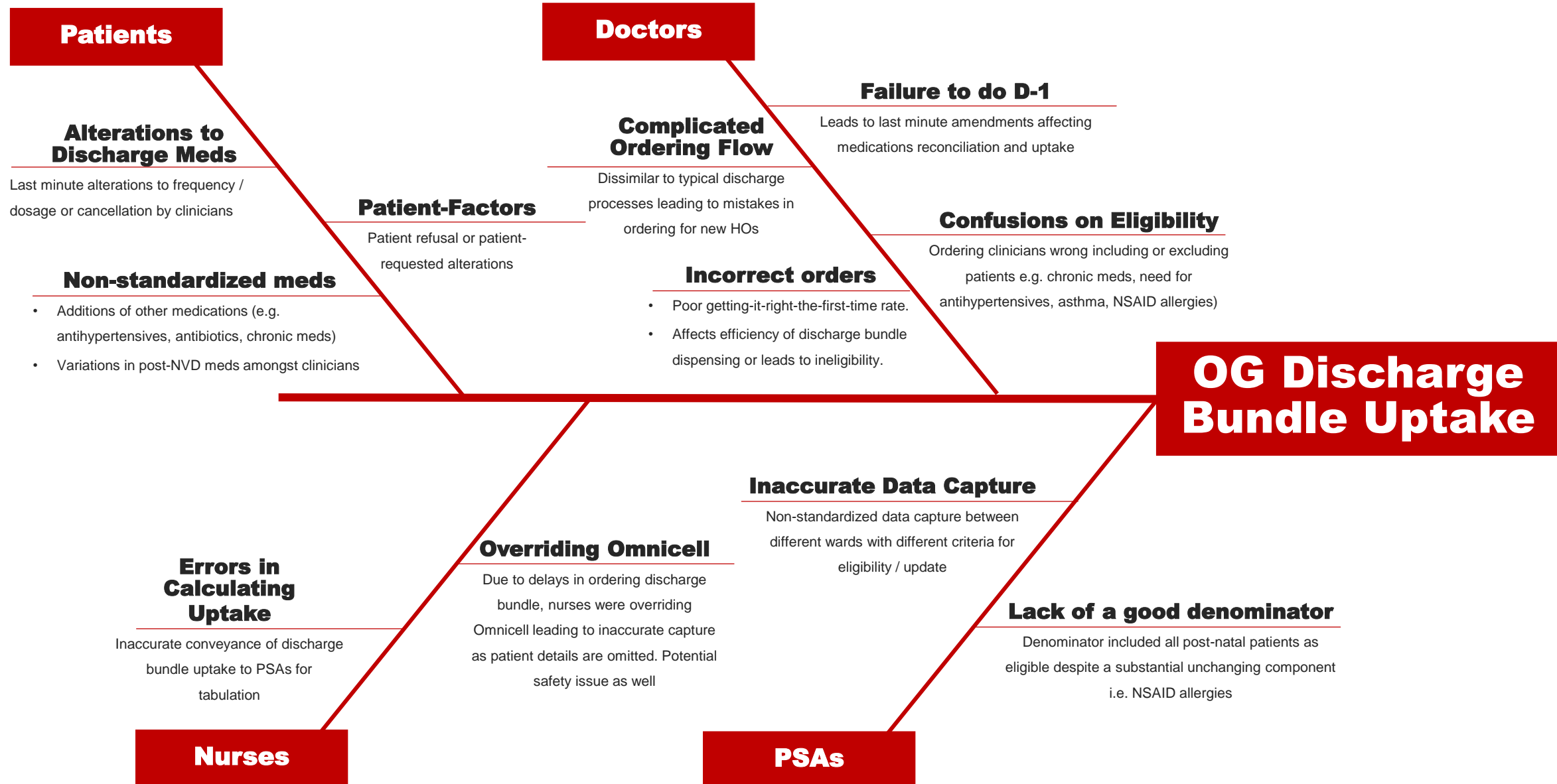
B. Goal (PLAN) Set SMART goals | Specific, Measurable, Achievable, Relevant, Time-based |



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C. Problem Analysis (PLAN) Gap Analysis



C. Problem Analysis (PLAN) Gap Analysis

Data Analysis (July 2021 – May 2022)

Main reasons for not using O&G Bundle:

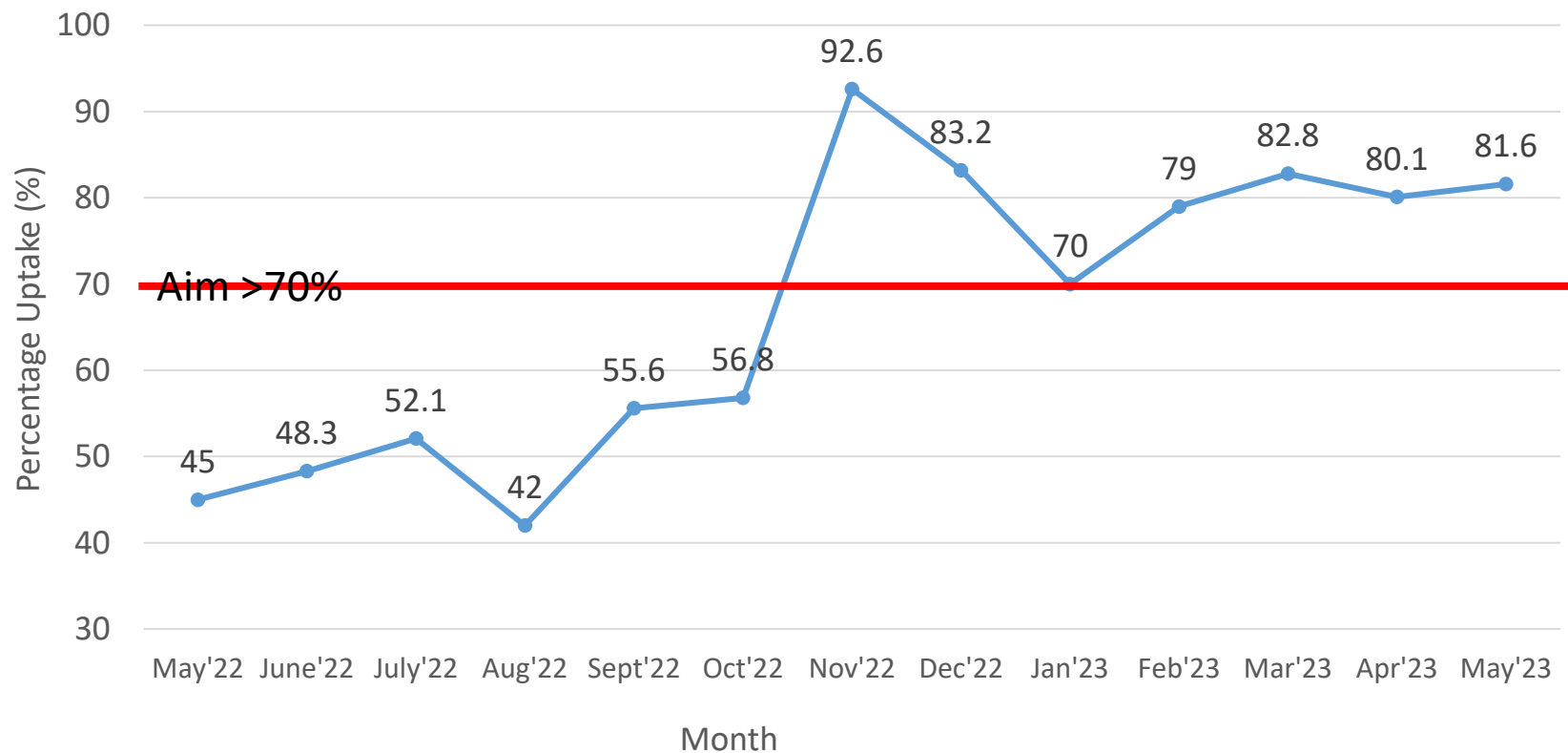
- 1) Patient intolerance due to allergies or asthma
- 2) Patient preference – refused bundle
- 3) Addition of other medication on top of bundle which disable the use of discharge bundle (system limitation)

Reasons for not using O&G bundle	Percentage of all post-natal patients
Patient intolerance to bundle item	10.5%
Asthma + NSAIDS Allergy	10%
Paracetamol allergy	0.50%
Patient preference - refused bundle	3%
Declined analgesia	2%
Request longer duration	1%
Other Medication on top of Bundle	27%
Augmentin (all quantities)	7%
<i>21 tabs</i>	2.5%
<i>18 tabs</i>	1.5%
Tramadol	3%
Danzen	3%
Tranexamic acid	2%
Dermatix	1%
Other meds (inc patient's old meds)	11%

D. Interventions & Action Plan (DO)

SN	Description	People responsible	Date of implementation
1	<p>Reducing unnecessary reduction in uptake arising from OTC & chronic meds by educating HOs that</p> <ul style="list-style-type: none"> • OTC meds (e.g. Dermatix, Lanolin cream, Sitz bath) do not need to be prescribed • Chronic meds can be “Continued” on EPIC instead of being prescribed again unless more supply requested by patients 	Ms Subashini & Tiffany	Oct’22
2	<p>Working with nurses to improve dispensing OGDB</p> <ul style="list-style-type: none"> • Avoiding Omnicell overrides & explaining importance • Standardising reporting of OGDB uptake figures to PSA 	SNM Mary Stella	Nov’22
3	<p>Improving prescriber training and familiarity to OGDB prescribing pathway by</p> <ul style="list-style-type: none"> • Creating a SmartPhrase checklist for HOs to keep track of pre-discharge agenda with built-in instructions on how to order the discharge bundle & assess eligibility • Orientation at start of HO posting on how prescribe discharge bundle <p>(See Appendix)</p>	Drs Abhiram & Shwetha	Oct’22
4	<p>Continual reminder to prescribers to use above SmartPhrase checklist and actively assess eligibility & optimize uptake for OGDB</p> <ul style="list-style-type: none"> • Strategic poster placement in MO Rooms • Continual reminders via Group Messaging with Hos • Peer-to-peer reminder for OGDB utilization 	Drs Abhiram & Shwetha	Oct’22
5	<p>Continued reminders to senior doctors to facilitate OGDB uptake by minimizing variation in discharge meds for routine postnatals</p> <ul style="list-style-type: none"> • Avoiding Danzen, other NSAIDs, different dosing / duration preferences) • Obtaining consensus on distinction between active and childhood asthma to avoid unnecessary exclusion of patients from OGDB due to NSAID concerns 	Drs Abhiram & Arundhati	Feb’23
6	<p>Improving visibility of whether OGDB to be dispensed or not for nurses by looking at AVS by adding “O&G Bundle” wording on OGDB items in discharge Rx & AVS</p> <p>(See Appendix)</p>	Ms Subashini & Tiffany	Oct’22
7	Creation of non-NSAID bundle to further increase pool of eligible patients	Drs Abhiram & Arundhati Ms Subashini	Feb’23

E. Benefits / Results (CHECK)



We have sustained an OG Bundle Uptake Rate of $\geq 70\%$ over 6 months

<u>Pre-intervention</u>		<u>Post-intervention</u>	
Month	% Uptake	Month	% Uptake
May'22	45	Nov'22	92.6
June'22	48.3	Dec'22	83.2
July'22	52.1	Jan'23	70
Aug'22	42	Feb'23	79
Sept'22	55.6	Mar'23	82.8
Oct'22	56.8	Apr'23	80.1
		May'23	81.6

E. Benefits / Results (CHECK)

The results show how far we have progressed since the launch of the O&G Discharge Bundle in 2019

Post Bundle Launch (Jul–Sep’19)

After OGDB was launched with meds duration of 7 days

Post Bundle Enhancement 2020 (Jun–Aug’20)

Improvement made:

- Duration increased to 10 days
- Launch of Iberet Folic prepack (commonest additional drug prescribed)

Post Bundle Enhancement 2022 (Oct’22-Apr’23)

Improvement made:

- Defined eligibility criteria better
- Reinforcement to prescribers & nurses
- Visual aids & system enhancement
- More intensive data collection

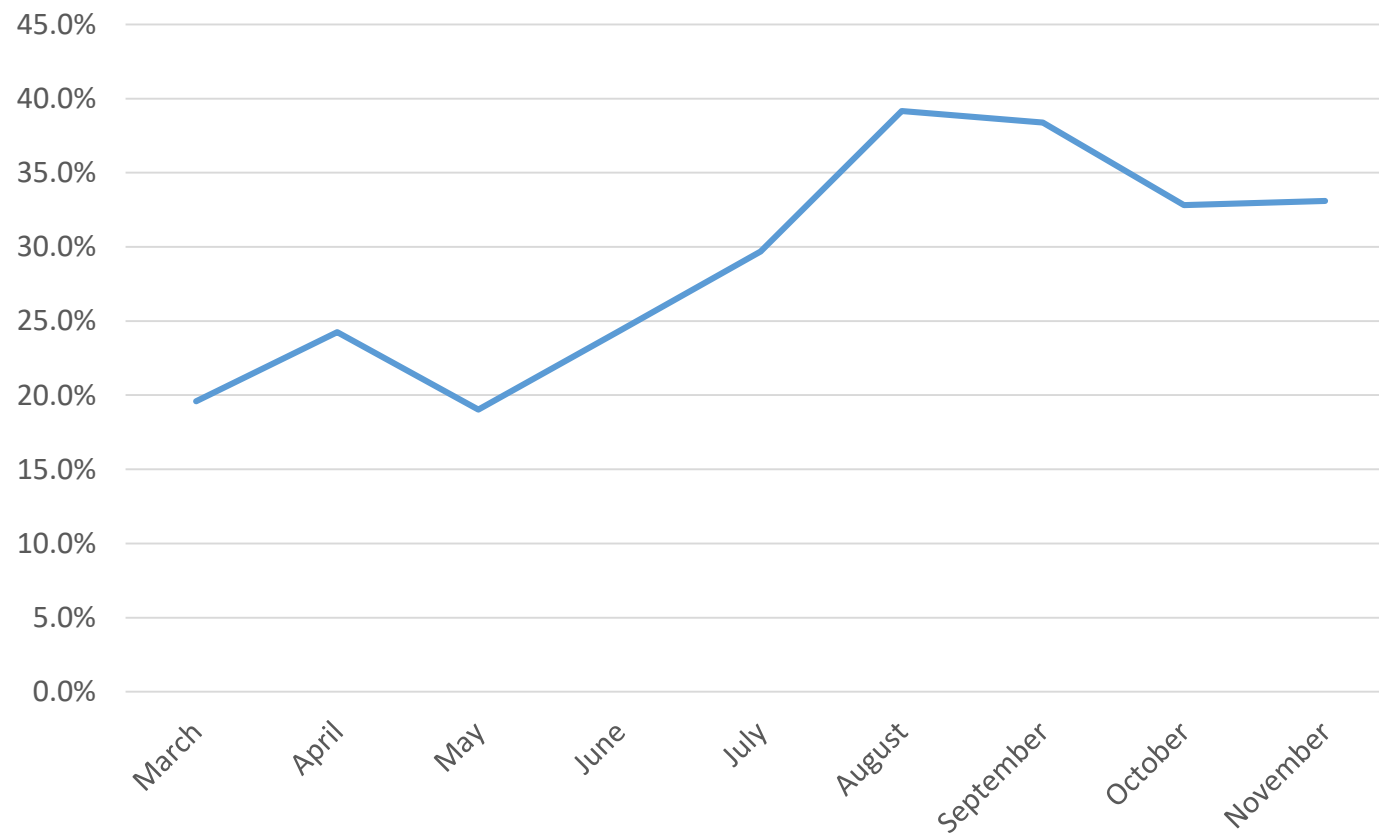
Timeline	Percentage Bundle Uptake (average %)
OBDB Launch <i>July – Sept 2019</i>	21.3%
Post-Bundle Enhancement 2020 <i>June – Aug 2020</i>	52%
Post-Bundle Enhancement 2022 <i>Oct 2022 – April 2023</i>	81.3%

E. Benefits / Results (CHECK)

The overall increase in O&G Discharge Bundle uptake is one of the contributing factors leading to the increase in percentage of early discharge in O&G wards.

2022	Percentage of early discharge in Ward 48, 9A, 9B (average %)
March	19.6%
April	24.3%
May	19.0%
June	24.3%
July	29.7%
August	39.6%
September	38.4%
October	32.8%
November	33.1%

Percentage of early discharge in Ward 48, 9A, 9B (average %)




F. Strategy for Spreading/ Sustaining (ACT)

What actions are required for continuous improvement? How will the results be sustained for the long run? Will the project be spread to other areas?

Education & Training

Orientation Training for HOs



Audit Checks

2 weekly submitted data from PSAs on OBDB uptake

Presentations

Monthly O&G Staff Meeting presentations with OBDB uptake as a KPI

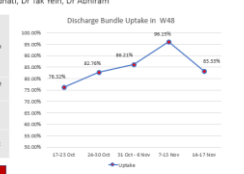
Discharge Bundle Sustainment QIP
Dr Shwetha, Tiffany, Suba, Sister Mary, Dr Arundhati, Dr Tak Yain, Dr Abhiram

Getting it right the first time & improving tracking:
• bundle Smart Text with instructions on how to order Discharge Bundle correctly.
• Making it easier for ward clerks to track eligibility.
• Serving as a standardized D-1 checklist for HOs.

Clearer inclusion & exclusion criteria:
• Making sure the right patients get the 'right bundle'.

On the ground walkabouts:
• Educating clerks, nurses, and HOs on importance of steps in the bundle prescription process.



Reducing bundle wastage:
• Reinforcing ways to prescribe the bundle even for patients with chronic medications.



Next Stop: Ward 9A & 9B

Communications

- Regular reminders on HO-group chats regarding OGDB utilisation
- Placement of poster to optimize prescriptions




Standard Works

Standardisation & consensus on discharge bundle components

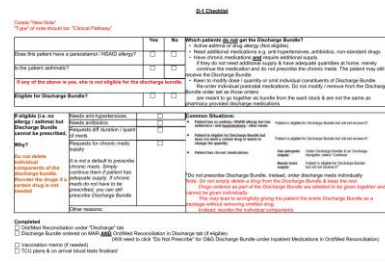
Survey Results

Respondents



Systems

Usage of a SmartPhase-based flow



Staff

Educated nurses and correct OGDB dispensing & to assist in D-1 assessment to minimize last minute changes & need for Omnicell override

Patient

- Better distinction between childhood and active asthma to reduce ineligibility for OGDB due to NSAID issues
- Not prescribing OTC meds in EPIC and obtaining them directly from ward omnicell stock
- PIL being prepared to educate patient on safety of tramadol in breastfeeding as part of non-NSAID bundle