



A Two-Year Review after Implementation of Inpatient Medication Order Entry System at United Christian Hospital

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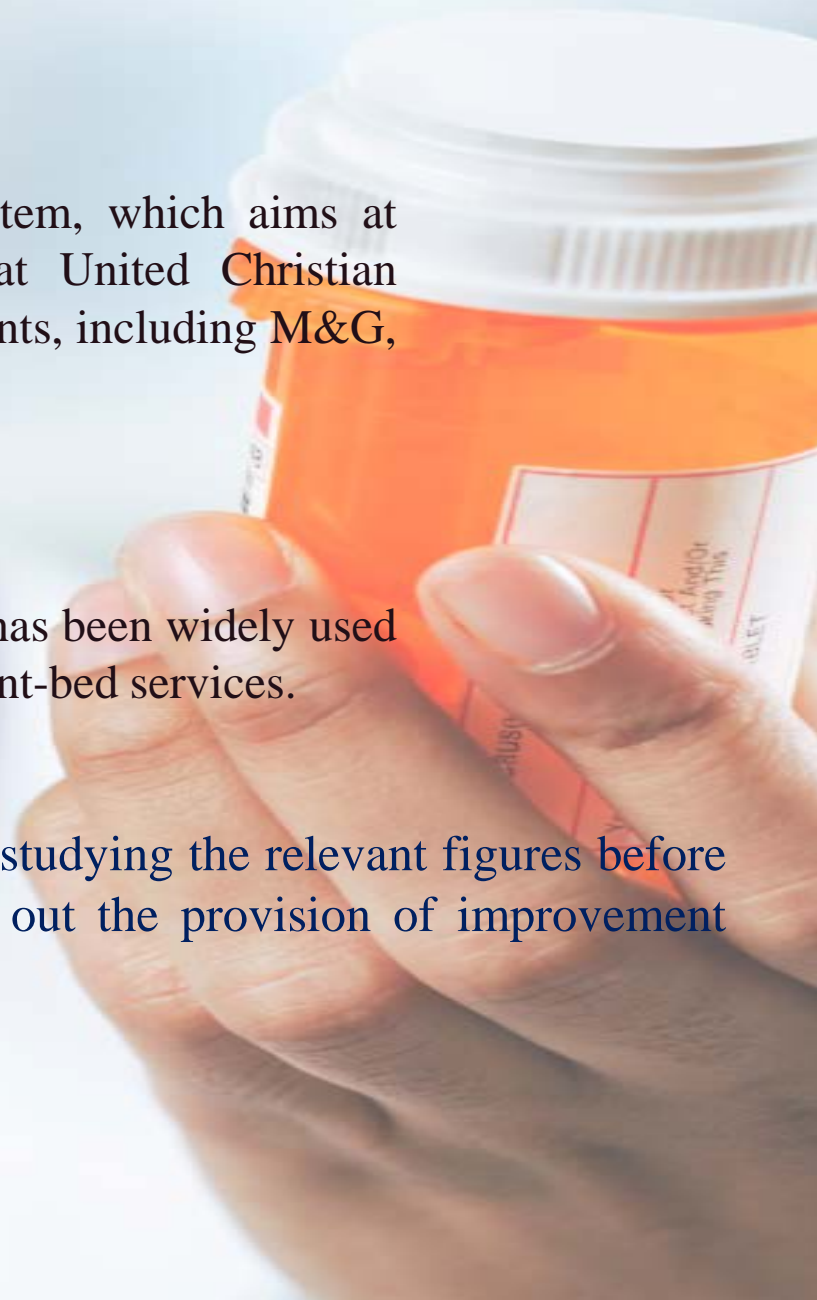
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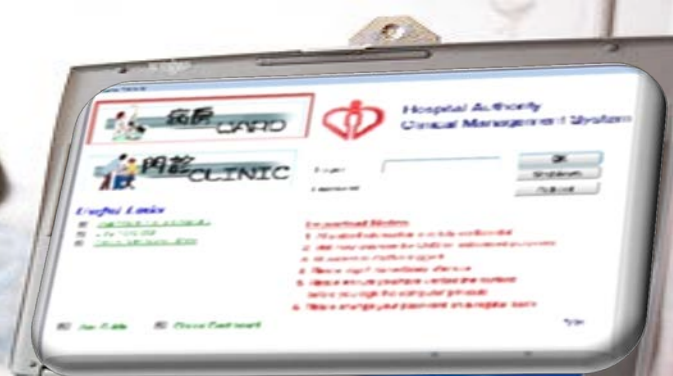
In Jul 2015

- Inpatient Medication Order Entry (IPMOE) System, which aims at enhancing medication safety, was rolled out at United Christian Hospital (UCH) with involvement of six departments, including M&G, SUR, O&T, O&G, PSY and ENT/EYE/DMF.

Since Jan 2016

- Upon the completion of implementation, IPMOE has been widely used at thirty-one inpatient wards for over 1,000 inpatient-bed services.
- To *evaluate the implementation outcomes* by studying the relevant figures before and after the implementation so as to figure out the provision of improvement initiatives.





Objectives

- ❖ To illustrate the implementation outcomes with multi-dimensional approach by measurement of Medication Administration Incidents (MAIs) trend and the satisfaction level of nurses towards IPMOE system;
- ❖ To review the compliance on drug administration processing with IPMOE system so as to beef up the medication safety.





Methodology

- Data Comparison with the MAIs
- Staff Experience and Satisfaction Survey
- Compliance on Drug Administration Processing with IPMOE

MAI Trend

- Figures before and after the implementation of IPMOE was analyzed;
- MAIs for four consecutive years from 2014 to 2017 was retrieved from Advanced Incidents Reporting System.

Staff Survey

- In 2Q2017, the Staff Experience and Satisfaction Survey on nurses' satisfaction level towards IPMOE was undergone;
- An electronic survey was designed to collect users' feedback on the integration of IPMOE system in voluntary basis.

Compliance

- Compliance on using IPMOE for proper processing drug administration was evaluated;
- Data on wristband scanning for patient identification during drug administration under IPMOE was evaluated.

Fig. 1 - Pre & Post Figures after Implementation of IPMOE at UCH

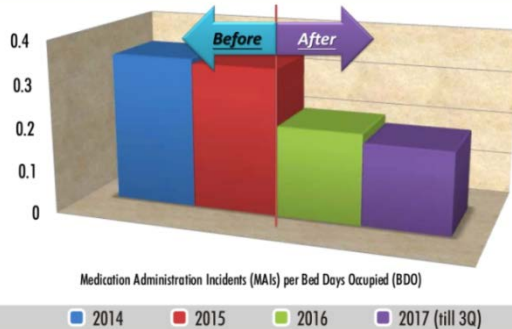
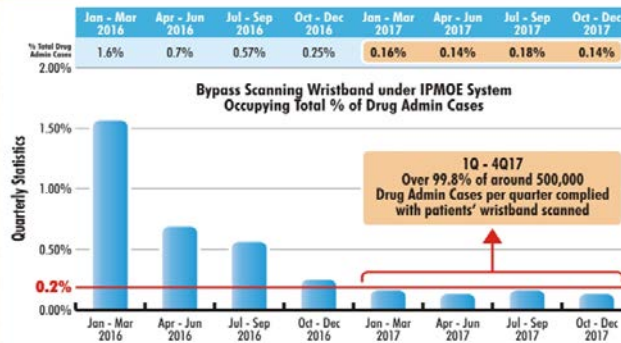


Fig. 2 - Statistics on Bypassing Scanning Wristband during Drug Administration under IPMOE System



Medication Administration Incident Rate

- **MAIs** rate was analyzed by the total number of MAIs per Bed Days Occupied (BDO) from 2014-2017
- **Persistent** reduction of around **46%** from **above 0.3** in 2014 & 2015 to **below 0.19** in 1-3Q2017
- **Explicitly** reflected the **enhancement on medication safety** of drug administration after implementation of IPMOE



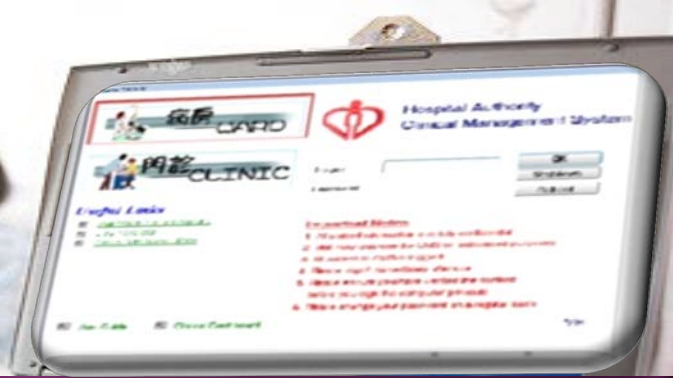
Staff Experience & Satisfaction Survey

- **Around 88%** nurses showed **satisfaction on using IPMOE** for drug administration comparing with using conventional paper sheet of MAR
- **Over 80%** nurses agreed that the **medication safety could be strengthened** by the implementation of IPMOE
- **Suggestion** for enhancing system to be **more user-friendly**; for instance, proposing new features



Compliance on Drug Administration Processing with IPMOE

- **Demonstrated a good compliance** on checking patient identification upon drug administration by using IPMOE
- **Throughout 1Q-4Q 2017**, the compliance on wristband scanning for patient identification during drug administration under IPMOE was **over 99.8% at UCH**
- **Exhibited** a strong adherence on **system checking for patient identification by IPMOE**



Conclusion

- ❖ To summarize, this study showed that IPMOE system was successfully implemented at UCH with contribution to the medication safety
- ❖ Scope of staff satisfaction level and compliance with the integration of IPMOE system were reviewed to shed light on the evaluation outcomes
- ❖ For the way forward, the provision of improvement initiatives should be further explored as a key to strive for seamless integration ahead



SPECIAL THANKS...



- Ms. Alice SHAM, KEC CGM(N)/UCH GM(N)
- Mr. Eric TANG, UCH Deputy GM(N)/UCH DOM(M&G)
- UCH IPMOE Task Force Members
- UCH IPMOE Nursing Working Group
- HOIT&HI Division

