



Singapore Healthcare Management 2018



MESHLIST

Your Trusted Medication Handling Resource

Kenneth Leung, Carol Chan, Adeline Wee, Doreen Tan
Pharmacy
Khoo Teck Puat Hospital



Background

- With the staggering number of medications in Khoo Teck Puat Hospital (KTPH), it is difficult for healthcare staff to recall and adhere to drug-specific handling instructions
- This is evident from the fact that there were:
 - >100** Medication handling related enquiries received by Pharmacy Drug Info (DI) section **alone** in 2017
 - >7** Reported **HITS** cases of drugs wrongly crushed and served between Jan 2016 and Jan 2017
- Such errors are preventable, and are likely under-reported if we include other types of errors like improper storage

Methodology

- **MESH List** is an online resource that provides updated and reliable information on specific handling instructions for an extensive array of drugs
 - **MESH List** is hosted on www.MeshList.net and was developed in the following phases:
- | | |
|----------------|---|
| Phase 1 | Extensive research and collation of drug-specific information and recommendations |
| Phase 2 | Content verification by Drug Info and Med Safety |
| Phase 3 | Setup of web and mobile-friendly digital platform |
| Phase 4 | Project launch to Pharmacy & Nursing staff in Oct 2017 |
- MESH List is a digital resource which comprises **6 sections** of key medication handling related information



Do Not Crush List



High Alert Medications



Avoid in Pregnant Women



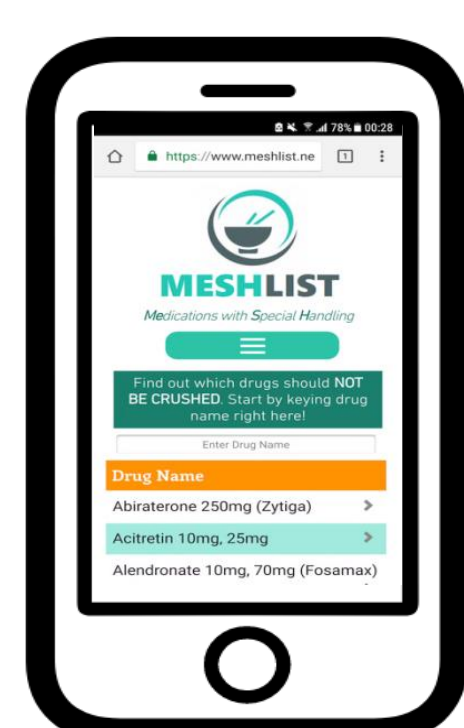
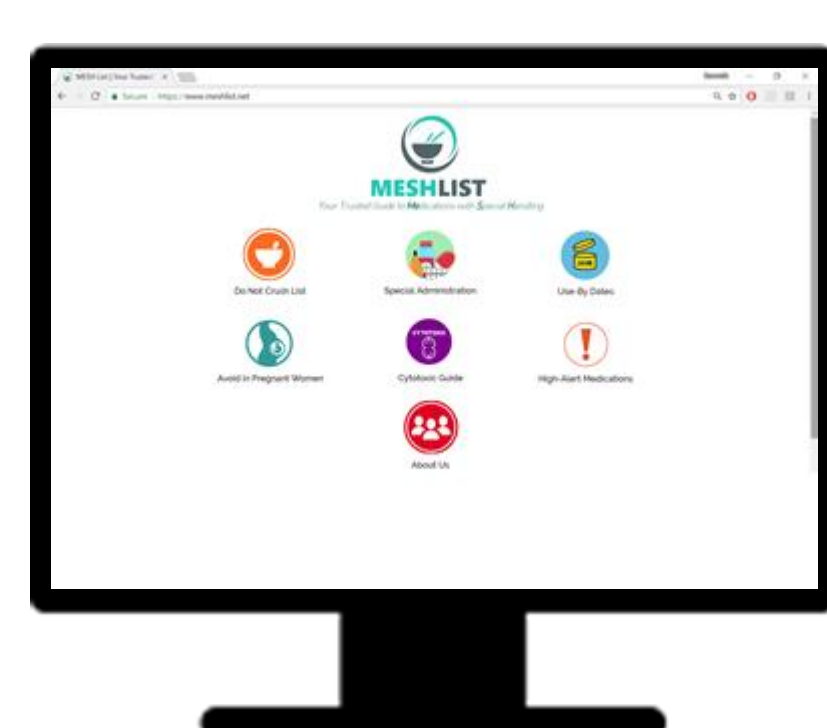
Special Administration



Use-By Dates / Storage



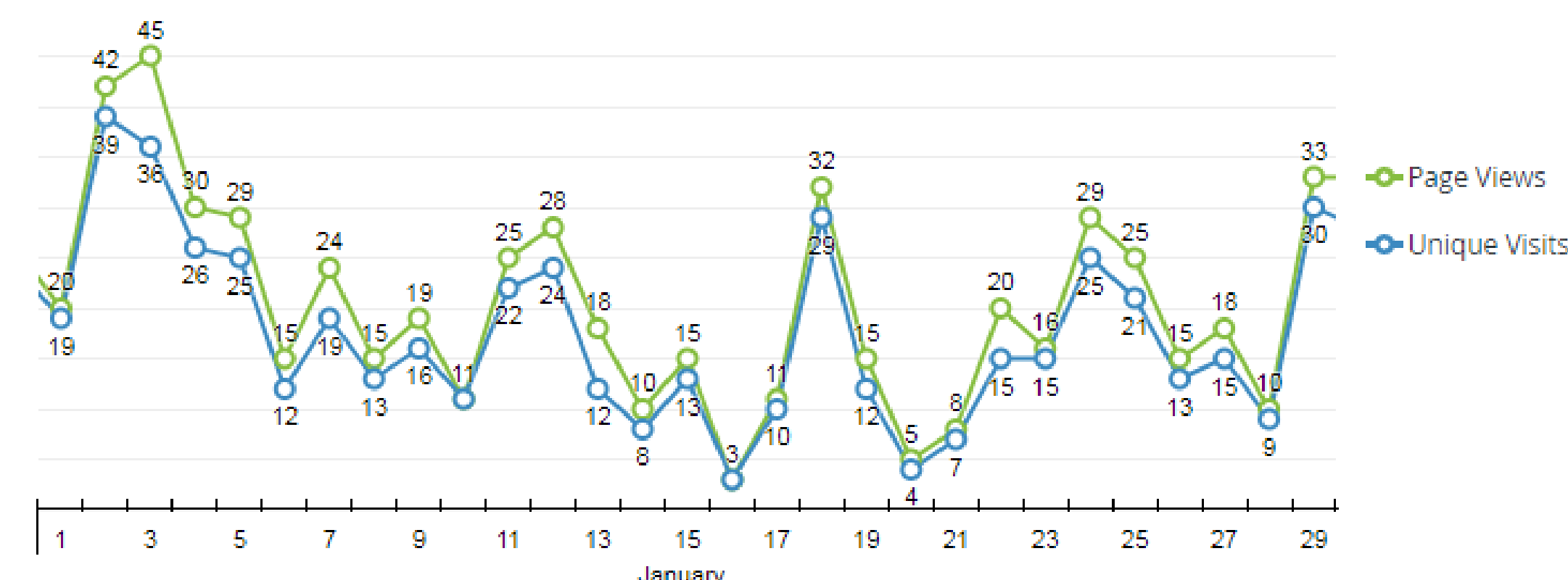
Cytotoxic Guide



Results

>20

Unique visitors daily as of Jan 2018, and growing!



Survey involving **Pharmacy** ($n=30$) and **Nursing** staff ($n=21$) recorded an excellent weighted average of **4.30** based on **trustworthiness, relevance** and **user's intention to recommend to others**



>94%

of internal survey respondents reported an increase in **perceived medication handling knowledge** after using MESH List

~90%

of DI enquiries involving drug crushing or special administration between Oct 2017 and Feb 2018 have answers that can be found on MESH List

Project Impact

- ALL staff** involved in medication education, preparation or administration (e.g. Nurses, Pharmacists, Doctors) will benefit from MESH List
- Improves **patient safety** by preventing errors from incorrect drug preparation, administration or storage
- Enhances **staff safety** by providing proper guidance on handling hazardous medications
- Increases **cost savings** by reducing incidences of condemned medications from improper storage
- Full impact** will be seen after hospital-wide upscale efforts to place MESH List on all computers in the inpatient wards and specialist outpatient clinics

Sustainability

- MESH List has top notch sustainability
 - ❖ Platform costs only **less than \$90 per year**, requires minimal maintenance, and customizable at any time
 - ❖ Content **constantly updated** by Drug Info as per current existing workflows

Conclusion

MESH List can be envisioned as the "UpToDate® of medication handling information". It aims to **reduce medication errors** arising from inadequate knowledge of drug preparation, administration and storage. Given its superb accessibility and quality content, MESH List can truly **enhance patient safety**, and promote a **safe and healthy** environment for **our staff** to work in.