

Effective Drug Management: Mitigation Strategies to Combat Critical Drugs' Shortages

Jamie Stephanie¹, Lim Kae Shin¹, Alfred Wan¹, Mai Xiangrui¹
¹Department of Pharmacy,
KK Women's and Children's Hospital, Singapore

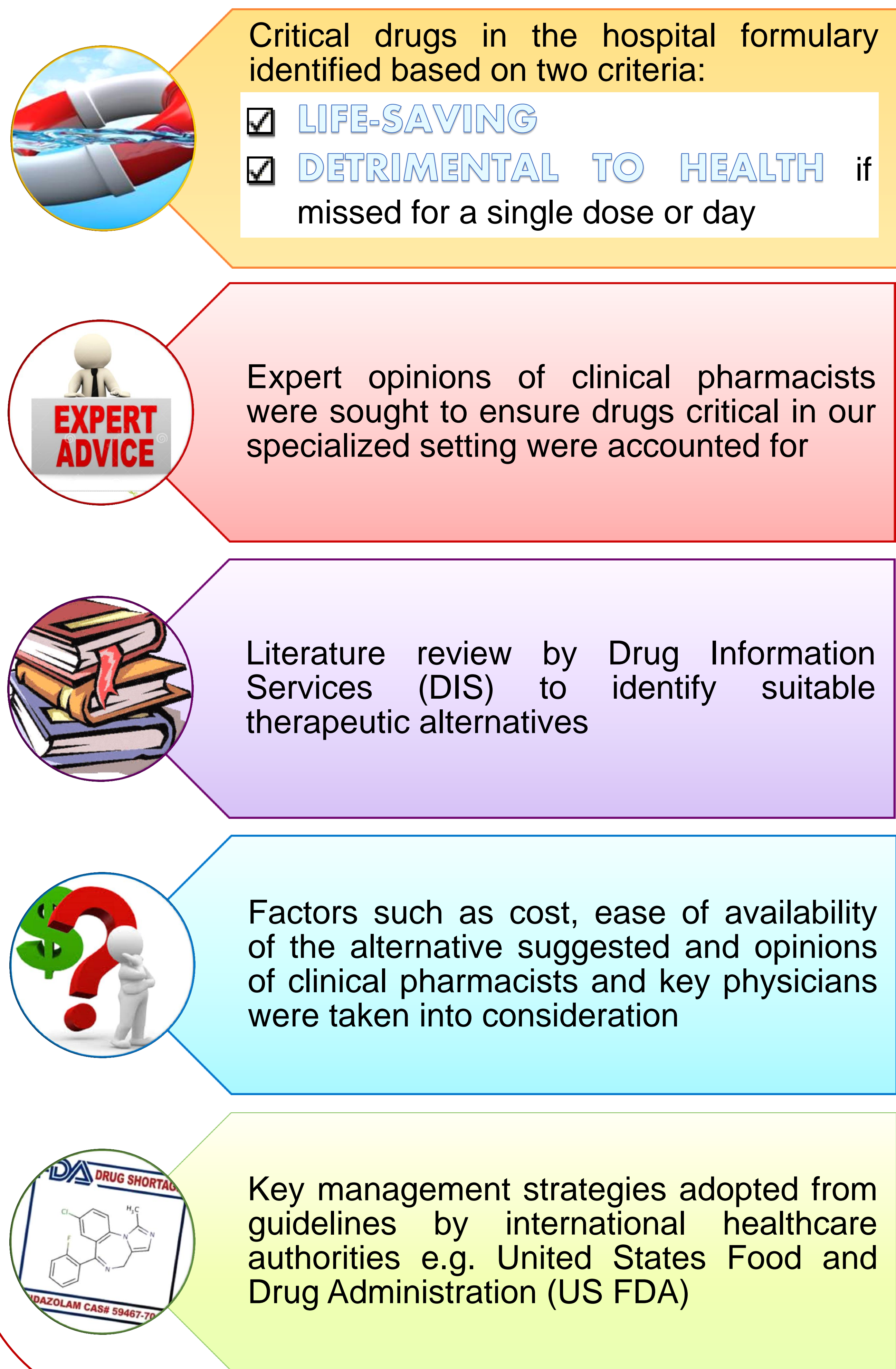
Introduction

The healthcare industry is inundated with daily news of drug shortages, which can adversely affect drug therapy and compromise medical procedures.

Aims



Methodology



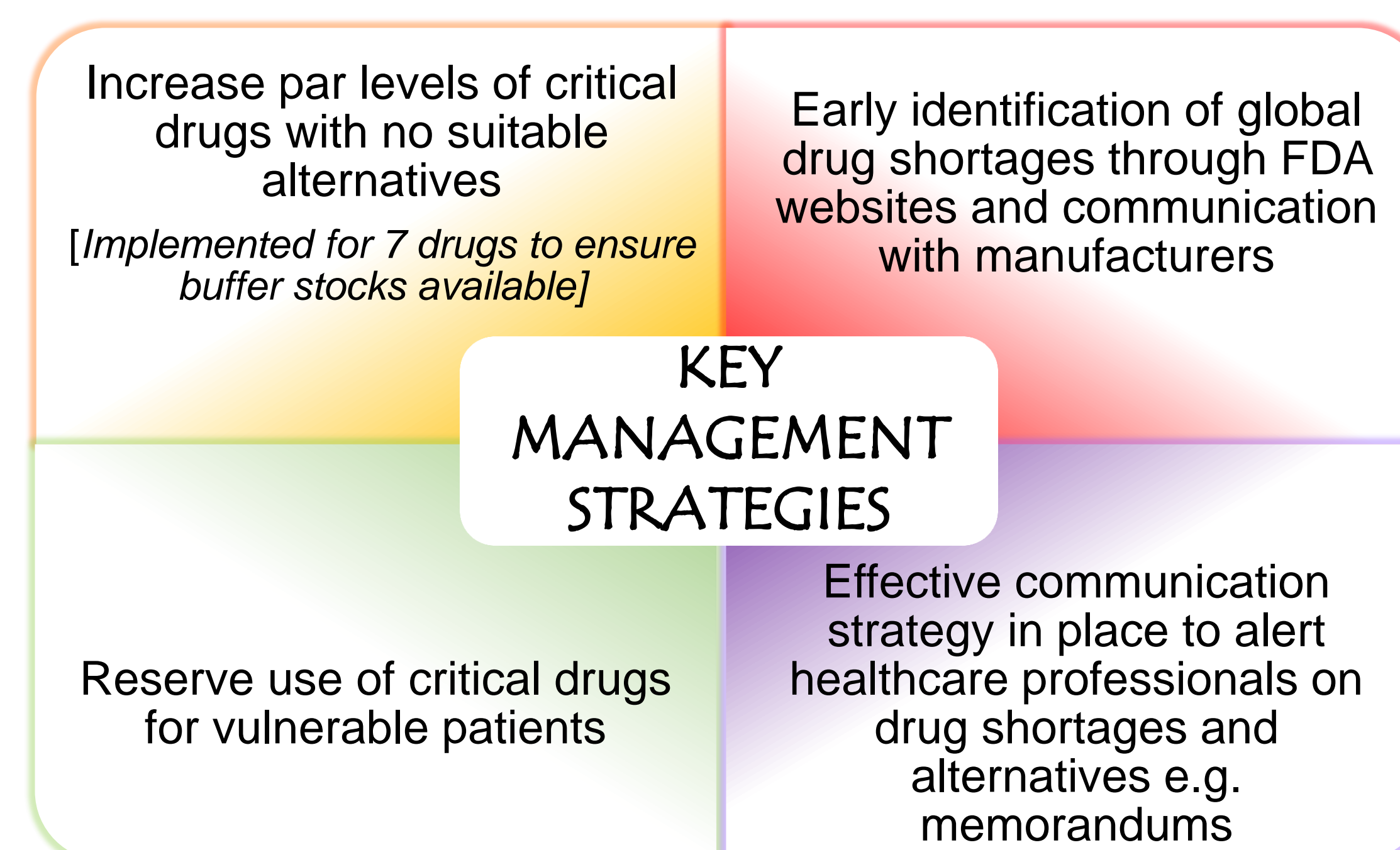
Results

99

CRITICAL DRUGS IDENTIFIED!

Out of the 99 drugs identified, 40 were evaluated for suitable alternatives (examples as below):

DRUG	INDICATION	PROPOSED ALTERNATIVE(S)
Acetylcysteine Injection	Antidote for paracetamol poisoning	Methionine oral powder
Caffeine Citrate Injection	Treatment of apnea of prematurity	Aminophylline Injection
Diazepam Enema	Acute management of seizures	Midazolam (Buccal) [Note: Not registered in Singapore and expensive, increase par levels of Diazepam Enema]
Factor IX [Profilnine® SD] Injection	Treatment of warfarin overdose, together with fresh frozen plasma and Vitamin K injection	Factor VII [NovoSeven®] Injection



Thus far, there have been no out-of-stock situations for these critical drugs after this initiative

Discussion

The alternatives were summarized into a table for quick reference.

The key management strategies proposed above are important in ensuring sufficient time to secure alternatives and disseminating information to the hospital. As it is impractical to increase par levels of all drugs, only those without alternatives were affected during the review to prevent obsolescence and wastage.

Conclusion

Given the profound impact that drug shortages have on patients' clinical outcomes and safety, establishing clear strategies is pertinent in tempering the effects of unavailability of critical drugs.

ACKNOWLEDGEMENT

We would like to thank Ms Irene Quay, our clinical pharmacists and relevant physicians in KKH, for their assistance and expert opinions.

Reference(s):

- American Society of Health-System Pharmacists. 2013b. *Drug Shortages* [Online]. Available from: <http://www.ashp.org/menu/DrugShortages> [Accessed 29 December 2013].
- Ventola CL. The drug shortage crisis in the United States: causes, impact, and management strategies. *P T* 2011; 36(11): 740-757.