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Hong Kong SAR**

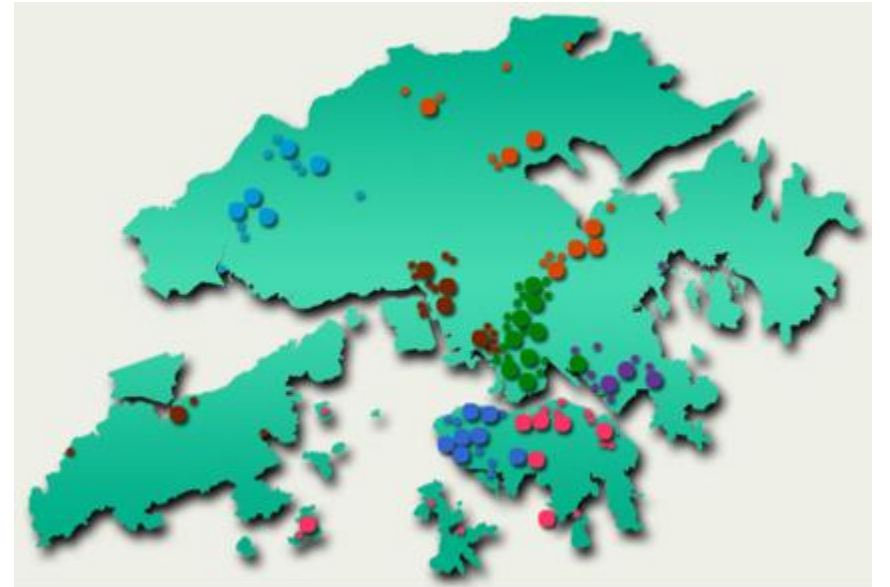
**- Initiatives on Warfarin safety**

**IMSN**

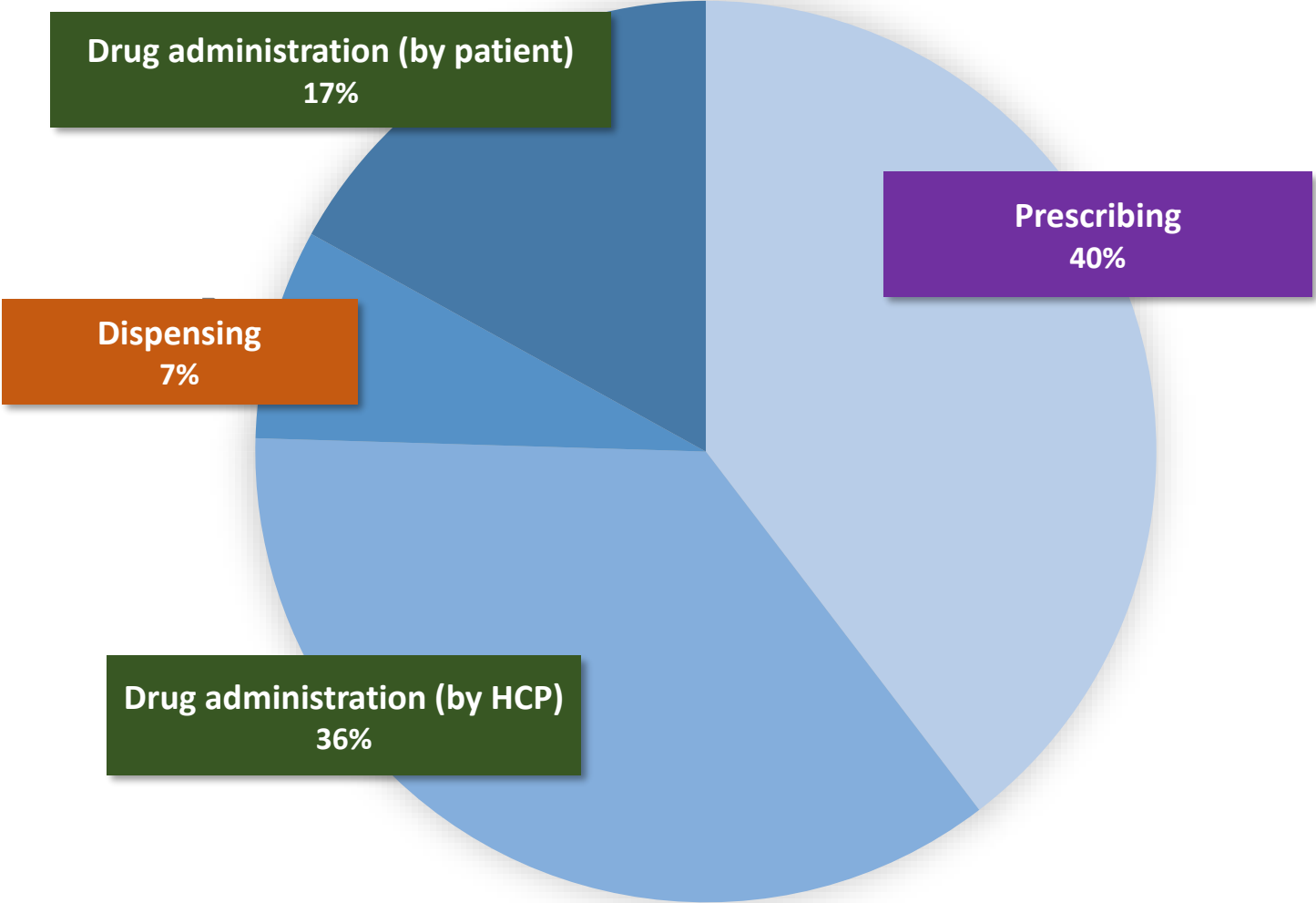
**14 November 2022**

# Hospital Authority (HA), HKSAR

- *43 public hospitals and institutions;*
- *49 specialist out-patient clinics; and*
- *73 general out-patient clinics*



# Warfarin related incidents (2019 - 2022)



# Warfarin regimen types

Daily	87%
Odd-even days	11%
<b>“Complicated”</b>	<b>2%</b>

## Examples of complicated regimen

SUN  
 5 DOSES PER WEEK  
 MON AND THU  
 MON AND TUE  
 MON, TUE, THU AND FRI  
**MON, TUE, THU, FRI AND SAT**  
 MON, TUE, WED AND THU  
 MON, TUE, WED, FRI AND SAT  
 MON, TUE, WED, THU AND FRI  
 MON, TUE, WED, THU, FRI AND SAT  
 MON, WED AND FRI  
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**SUN AND WED**  
 SUN, FRI AND SAT  
 SUN, MON AND THU  
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**SUN, MON, WED, FRI AND SAT**  
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 SUN, TUE AND FRI  
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**SUN, TUE, WED, FRI AND SAT**  
 SUN, TUE, WED, THU, FRI AND SAT  
 SUN, WED, THU, FRI AND SAT  
 TUE AND FRI  
 TUE AND SAT  
 TUE AND THU  
 TUE, THU AND SAT  
**TUE, WED AND THU**  
**TUE, WED, FRI AND SAT**  
 TUE, WED, THU AND FRI  
 WED AND FRI  
 WED AND SAT  
 MON, FRI  
 SUN, TUE, WED, THU AND SAT

# Standardising the regimen?



Exploration of the  
concept of  
**“Average Daily Dose”**

Intended <b>“Average dosage per day”</b>	Standardised Dosage Pattern
0.25mg	0.5mg Alt day
0.5mg	0.5mg Daily
0.75mg	1mg Odd Day & 0.5mg Even Day
1mg	1mg Daily
1.25mg	1mg Odd Day & 1.5mg Even Day
1.5mg	1.5mg Daily
1.75mg	2mg Odd Day & 1.5mg Even Day
2mg	2mg Daily
2.25mg	2mg Odd Day & 2.5mg Even Day
2.5mg	2.5mg Daily
2.75mg	3mg Odd Day & 2.5mg Even Day
3mg	3mg Daily
3.25mg	3mg Odd Day & 3.5mg Even Day
3.5mg	3.5mg Daily
3.75mg	4mg Odd Day & 3.5mg Even Day
4mg	4mg Daily
4.25mg	4mg Odd Day & 4.5mg Even Day
4.5mg	4.5mg Daily
4.75mg	5mg Odd Day & 4.5mg Even Day
5mg	5mg Daily
5.25mg	5mg Odd Day & 5.5mg Even Day
5.5mg	5.5mg Daily
5.75mg	6mg Odd Day & 5.5mg Even Day
6mg	6mg Daily

# The information-loaded warfarin journey



1. Dosage
2. Frequency
3. INR result – up / down, latest result available
4. Omit if > / <
5. Give if > / <
6. Optimal INR target
7. Optimal dosing to target



1. Instruction on warfarin therapy
2. More than 1 type of tablets
3. Change in regime
4. Blood-taking



1. Warfarin dosage
2. Latest INR result
3. Timing of INR result and administering
4. Omit if > / <
5. Give if > / <

Smart solutions ....  
- capture clinical intention

INR result for reference:

21-May-2020:	2.4
20-May-2020	2.2
05-Oct-2019	1.8



# Corporate-wide Warfarin safety campaign

- To raise awareness of warfarin safety and gather bright ideas

Hospital Authority  
**Warfarin Safety Campaign**

Increase? 2.5mg?  
Decrease? 2.5mg?  
INR? Give if INR > ?  
INR Target? > ?  
Optimal INR

Have I checked the INR?

How much should I take?

Warfarin 5mg tablets

**Do you know ?**

- In 2020, around 19,000 HA patients were prescribed Warfarin and among them, 2,200 were new cases
- 98.5% of these patients were on daily or odd-even day regime, 1.5% were on complicated regime
- There have been around 10 Warfarin related incidents each year in 2019 - 2020
- Common Observations:
  - ◆ Actual prescription different from the intended prescription or shorter than intended period
  - ◆ Not referring to the most updated INR
  - ◆ Complicated regime

**Theme**

We hope to call for bright ideas on Warfarin safety in HA, such as smarter administration, prescription, dispensing or patient communication

**Awards & Prize**

Champion : Apple AirPods Pro  
1st runner up : Nintendo Switch Lite  
2nd runner up : Bruno Compact Hot Plate  
Merit : Supermarket Cash Coupon

SCAN ME

Submission deadline  
30 June 2022

# Development of Pharmacist-managed Anticoagulation Clinics in HA

- Integrated physician-pharmacist care model
- In medical Specialist Out-patient Clinic
- Pharmacist consultation at appropriate intervals between physician appointments

The infographic is titled "SMART Safe practice, Good practice Issue 125, 31 May 2021". It features a central graphic of a lightbulb with the text "SMART TIPS FOR WARFARIN PRESCRIPTION". To the right, under "Recent incidents in HA", two cases are listed: "A patient was prescribed two times the intended dose of Warfarin and succumbed 3 weeks later." and "A patient was prescribed Warfarin 3mg on even days instead of daily and resulted in stroke." The infographic contains four tips in colored boxes: Tip 1 (green) "Use Warfarin Booklet to engage your patient" with a booklet icon; Tip 2 (orange) "Specify the primary clinic responsible for Warfarin in CMS reminder" with a computer screen icon; Tip 3 (teal) "Refer new patients & high risk patients to Pharmacy for education" with a pharmacy icon and a "Medicine Form for Patient Education by Pharmacist" form; and Tip 4 (blue) "Be careful when using advanced option, always countercheck your prescription." with a magnifying glass icon and a form showing "Advanced Option" checked. A yellow banner at the bottom right says "Wrong Warfarin prescription is lethal!". The footer includes "Warfarin 服用跟得好，危險唔嘅白然冇" and "NTEC Q&S".



*Thank*



*Safety*

