



HOW TO LEVERAGE eHR STANDARDS AND CLINICAL APPLICATIONS TO IMPROVE MEDICATION USE PROCESS

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3 Mar 2017

Chairman of eHR Medication Decision Support User
Consultation Group

Who am I?

- End User on behalf of St. Teresa's Hospital (STH) and St. Paul's Hospital (SPH)
- Chairman of eHR Medication Decision Support (MDS) User Consultation Group (UCG)
- Member of eHR IS DG on Drug Record on behalf of SHPHK
- Member of eHR IS Domain Group on Role-based Access Control (RBAC)

Medication Decision Support (MDS) User Consultation Group (UCG) Terms of Reference

- 1. To act as a consulting and advisory body on development of Medication Decision Support (MDS)**
 - 2. To study and provide expert advice on checking scope and rules**
 - 3. To monitor and review existing MDS functions**
 - 4. To propose workflow of the module and ensure it was fit for purposes and updated**
 - 5. To communicate with the relevant stakeholders such as frontline users, project team, IT**
 - 6. To preform user acceptance test of the new functions**
 - 7. To report to CMS Adaptation Task Force**
- Meeting frequency: every 3-4 months**

eHR Medication Decision Support
User Consultation Group
 Membership

Eric WONG	(Co-Chairman)	Pharmacist	St. Teresa's Hospital
Helen HUI		Pharmacist	St. Paul's Hospital
Jacky CHAN		Pharmacist	Department of Health
Dr. Barry TAM		Doctor	Department of Health
Dr. Anthony NG		Doctor	Tsuen Wan Adventist Hospital
Dr. Lee I		Doctor	Canossa Hospital
Kevin CHUNG		Pharmacist	Precious Blood Hospital
LI Po Shan		Pharmacist	Canossa Hospital
Christine SHE		Pharmacist	Evangel Hospital
Catherine HUNG		Pharmacist	Quality HealthCare
Alan WONG		Pharmacist	Quality HealthCare
Lydia SHUM	(Co-Chairman)	HI	eHR PMO
Alice LAM		SSM	Food and Health Bureau
Ellen TONG		SHI	eHR PMO
Hudson CHAN		SSM	eHR PMO
Connie LAU		Pharmacist	eHR PMO
Catherine SUM	(Secretary)	EO	eHR PMO

Why we want to engage

- Serious allergic and anaphylactic reactions can occur when known drug allergens are prescribed, dispensed and administered to patients in hospitals
- Back in the old days, allergy information are not entered in a structured format → result in tons of free text entries
- In 2012, a new structured allergy data entry function developed (for PIS) in order to convert the free texts but still not coded in systematic layers
- Not all drugs of the local market included in our structured allergen list → result in more free text entries
- No drug allergy checking
- Information unable to be shared among different professionals in a common application

What do we engage?

- Structured Alert Adaptation Module (SAAM)
- Drug Allergy Checking (DAC)

Structured Alert Adaptation Module

- Structured Alert Adaptation Module (SAAM) is an user-friendly, precise and clear allergy documentation system which is developed for Hong Kong territory wide uses by the eHR CMS adaptation task force. SAAM also supports allergy information exchange.
- Powerful searching function for allergens by using either brand or ingredient (VTM). You can easily locate the items you want even with a typo – as they have a google-like search function- “Did you mean”
- Most importantly, they always include an updated allergens list with most of the pharmaceutical products registered in the drug compendium (Drug office)

Structured Alert Module - Windows Internet Explorer

Documenting an allergen using Structured Alert Adaptation Module

CHAN, SIO MAN (梁) 梁
HKIC: UH987654(1) DOB: 24-May-1958 Age: 54 years Ward: 5A-X12 Hospital No.: 456789

Allergy / Adverse Drug Reaction / Alert

Allergy ? Add

☐ No Known Drug Allergy

Adverse Drug Reaction ? Add

Alert Add

New Allergy Details

Allergen / Allergen Group: ☐ Multiple-Ingredients products

Drug Allergy

Adverse Drug Reaction

Clinical Alert

Structured Free Text Imported free text data Deleted

The screen dump of SAAM.

Search by Ingredient or brand

chlorphe

chlorphenamine maleate

Chlorpheniramine Expectorant (PM) (ammonium chloride + chlorphenamine maleate)

Chlorpheniramine-G (chlorphenamine maleate)

Chlorpheniramine-P (chlorphenamine maleate)

Chlorphenon (chlorphenamine maleate)

chlorpheniramine maleate (chlorphenamine maleate)

dexchlorpheniramine maleate

Axcel Chlorpheniramine (chlorphenamine maleate)

Axcel Dexchlorpheniramine
(dexchlorpheniramine maleate)

Madame Pearl's MP-Chlorpheniramine
(chlorphenamine maleate)

pirito

Piriton (chlorphenamine maleate)

Google-like search “Did you mean...”

penice

Did you mean *penicillins* ?

penicillins

Pengesic (diclofenac diethylamine)

Pengesic SR (tramadol hydrochloride)

Penisul (bromhexine hydrochloride + caffeine + chlorphenamine maleate + lysozyme hydrochloride + noscapine + paracetamol + phenylephrine hydrochloride)

Pencor (doxazosin (as mesilate))

Pencla (amoxicillin (as trihydrate) + clavulanate (as potassium))

penice (Drug) (*Free Text*)

penice (Non-Drug) (*Free Text*)

chlorpha

Did you mean *chlorphenamine maleate* ?

chlorphenamine maleate

Chloroph (chloramphenicol)

Chlorphenon (chlorphenamine maleate)

Chlor (chloramphenicol)

Chlorop (chloramphenicol)

Chloramine (chlorphenamine maleate)

chlorbutol (chlorobutanol)

chlorpheniramine maleate (chlorphenamine maleate)

chlrophedianol hydrochloride (clofedanol hydrochloride)

chlorpha (Drug) (*Free Text*)

chlorpha (Non-Drug) (*Free Text*)

Search by allergen group

penic

penicillins

penicillin V (as potassium)

(phenoxymethylpenicillin (as potassium))

penicillin G (as sodium) (benzylpenicillin (as sodium))

penicillin G sodium (benzylpenicillin sodium)

benzathine benzylpenicillin

benzylpenicillin (as sodium)

benzylpenicillin sodium

phenoxymethylpenicillin (as potassium)

procaine benzylpenicillin

Pan-Penicillin (benzylpenicillin sodium)

Sterile Procaine Penicillin G (procaine benzylpenicillin)

benzathine penicillin (benzathine benzylpenicillin)

procaine penicillin (procaine benzylpenicillin)

Search non- formulary drug items

coltalin|

Coltalin With Vit B1 (For Adult) (caffeine + chlorphenamine maleate + paracetamol + phenylephrine hydrochloride + thiamine hydrochloride)

Coltalin-GP (chlorphenamine maleate + guaifenesin + paracetamol + phenylephrine hydrochloride)

Coltalin-GP Extra (bromhexine hydrochloride + chlorphenamine maleate + noscapine + paracetamol + phenylephrine hydrochloride)

chlorpheno

Chlorphenon (chlorphenamine maleate)

Clinical manifestation for the allergy reaction

Allergen / Allergen Group: Coltalin With Vit B1 (For Adult) (caffeine + chlorphenamit

Level of Certainty

☒ Certain ☐ Suspected

Clinical Manifestation

- | | |
|--|---|
| <input type="checkbox"/> Allergic contact dermatitis | <input type="checkbox"/> Fibrosing alveolitis |
| <input type="checkbox"/> Allergic rhinitis | <input type="checkbox"/> Fixed drug eruptions |
| <input type="checkbox"/> Anaphylaxis | <input type="checkbox"/> Generalised liver damage |
| <input type="checkbox"/> Angioedema | <input type="checkbox"/> Haemolytic anaemia |
| <input type="checkbox"/> Aplastic anaemia | <input type="checkbox"/> Photosensitivity |
| <input type="checkbox"/> Asthma | <input type="checkbox"/> Pruritus |
| <input type="checkbox"/> Atopic dermatitis | <input type="checkbox"/> Rash |
| <input type="checkbox"/> Cholestasis | <input type="checkbox"/> Serum sickness |
| <input type="checkbox"/> Eczema | <input type="checkbox"/> Stevens-Johnson syndrome |
| <input type="checkbox"/> Erythema multiforme | <input type="checkbox"/> Toxic erythema |
| <input type="checkbox"/> Erythema nodosum | <input type="checkbox"/> Urticaria |
| <input type="checkbox"/> Erythroderma | <input type="checkbox"/> Manifestation uncertain |
| <input type="checkbox"/> Exfoliative dermatitis | <input type="checkbox"/> Other allergic reaction |
| <input type="checkbox"/> Fever | (Please specify below) |

Additional Information

----- Please specify additional information if necessary -----

Save

Adverse drug reactions

Drug:	<input type="text" value="diclofenac diethylamine"/>
Level of Severity	
<input checked="" type="radio"/> Severe <input type="radio"/> Mild <input type="radio"/> Undetermined	
Adverse Drug Reaction	
<input type="checkbox"/> Angioedema <input type="checkbox"/> Ankle swelling / ankle edema <input type="checkbox"/> Bone marrow suppression <input type="checkbox"/> Bradycardia <input type="checkbox"/> Bronchospasm <input type="checkbox"/> Dizziness <input type="checkbox"/> Hyperkalemia <input type="checkbox"/> Hyponatremia <input type="checkbox"/> Liver Impairment / LFT derangement <input type="checkbox"/> Skin rash <input type="checkbox"/> Reaction uncertain <input type="checkbox"/> Others (Please specify below)	
Additional Information	
<div>----- Please specify additional information if necessary -----</div>	

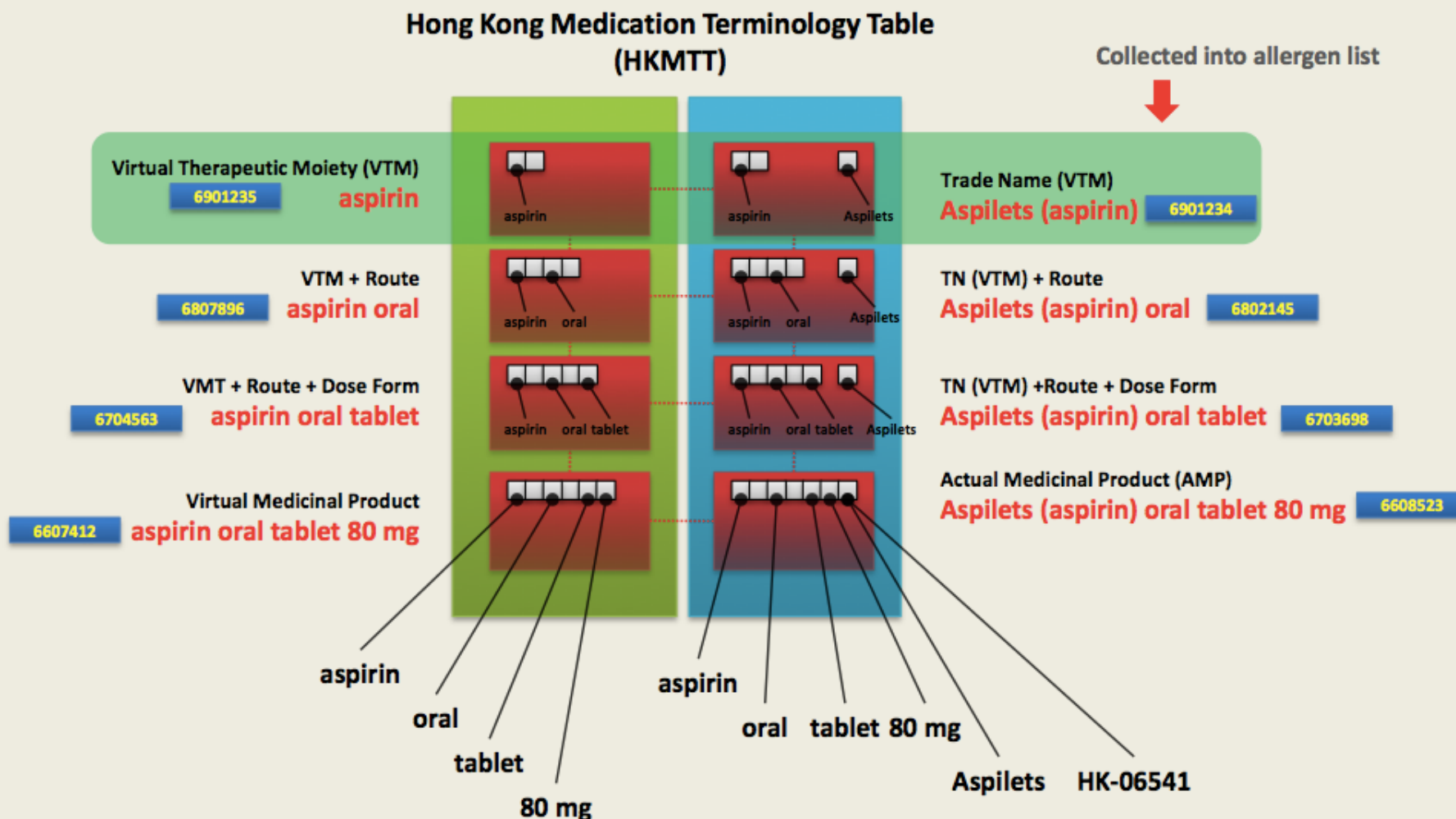
Clinical alerts

Alert Search:

Clinical Condition	On Medication
<ul style="list-style-type: none"><input type="radio"/> G6PD Deficiency<input type="radio"/> Immunocompromised<input type="radio"/> HLA-B*1502 Positive<input type="radio"/> HLA-B*1502 Negative<input type="radio"/> Pregnancy<input type="radio"/> Breastfeeding	<ul style="list-style-type: none"><input type="radio"/> On Warfarin<input type="radio"/> On Aspirin<input type="radio"/> On Steroid<input type="radio"/> On Plavix<input type="radio"/> Hx of Streptokinase<input type="radio"/> On Icodextrin: H'stix overestimated by GDH PQQ glucometers
Assessment	Infectious
<ul style="list-style-type: none"><input type="radio"/> Deaf<input type="radio"/> Blind<input type="radio"/> Long Term Oxygen Therapy<input type="radio"/> Double Incontinence<input type="radio"/> Difficult Intubation	<ul style="list-style-type: none"><input type="radio"/> MRSA in Sputum/Wound<input type="radio"/> Hepatitis B Carrier<input type="radio"/> HIV Carrier [Classified]<input type="radio"/> Tuberculosis
Procedure	Miscellaneous
<ul style="list-style-type: none"><input type="radio"/> Implanted pacemaker reported at risk of dysfunction<input type="radio"/> Implanted Cardioverter Defibrillator (ICD) reported at risk of dysfunction<input type="radio"/> Implanted Cardiac Resynchronization Therapy - Pacemaker (CRT-P) reported at risk of dysfunction<input type="radio"/> Organ transplant<input type="radio"/> Valvular Replacement<input type="radio"/> Total Parathyroidectomy<input type="radio"/> Splenectomy<input type="radio"/> Implanted Neurostimulator	<ul style="list-style-type: none"><input type="radio"/> History of Alcoholism [Classified]<input type="radio"/> History of Drug Abuse [Classified]<input type="radio"/> History of Victim of Child Abuse [Classified]<input type="radio"/> History of Victim of Elderly Abuse [Classified]<input type="radio"/> Previous suicidal attempt [Classified]<input type="radio"/> History of Violence [Classified]

The allergen list in the eHR Structured Alert Adaptation Module comes from HKMTT

HKMTT example - Aspilets®



The top level adopted for allergen list - Why?

- Information on ingredients of the allergen is sufficient for drug allergy checking
- Trade name is used to assist the doctors in searching the allergen

When does it start in STH?

April 2012

Data conversion & migration for SAAM

Oct 2012

SAAM Implementation for Pharmacists (~ 11000)

June 2013

SAAM Implementation for OPD Doctors and Nurses (45000+)

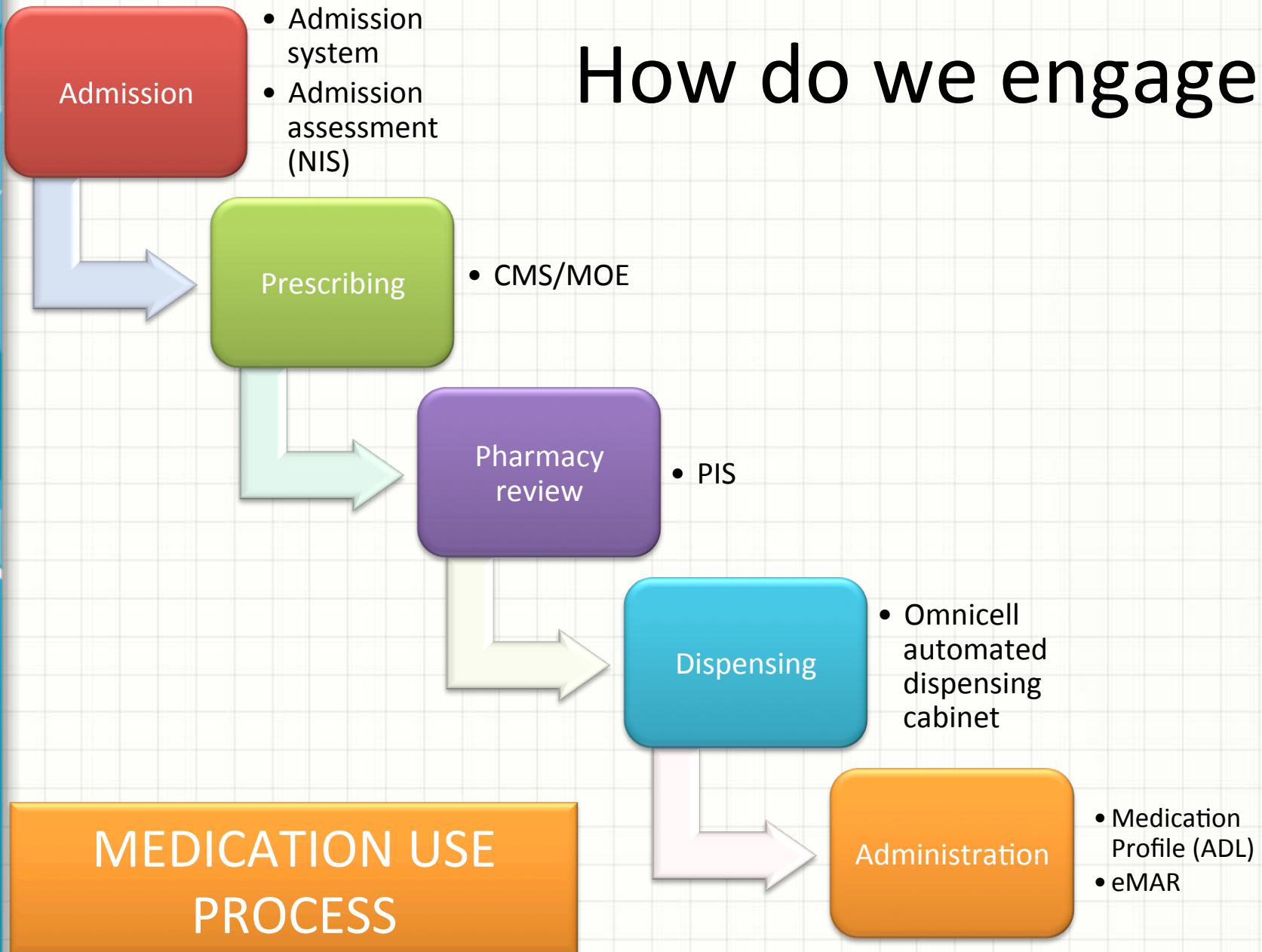
Sep 2013

Promotion & Training for other clinicians and nursing staff

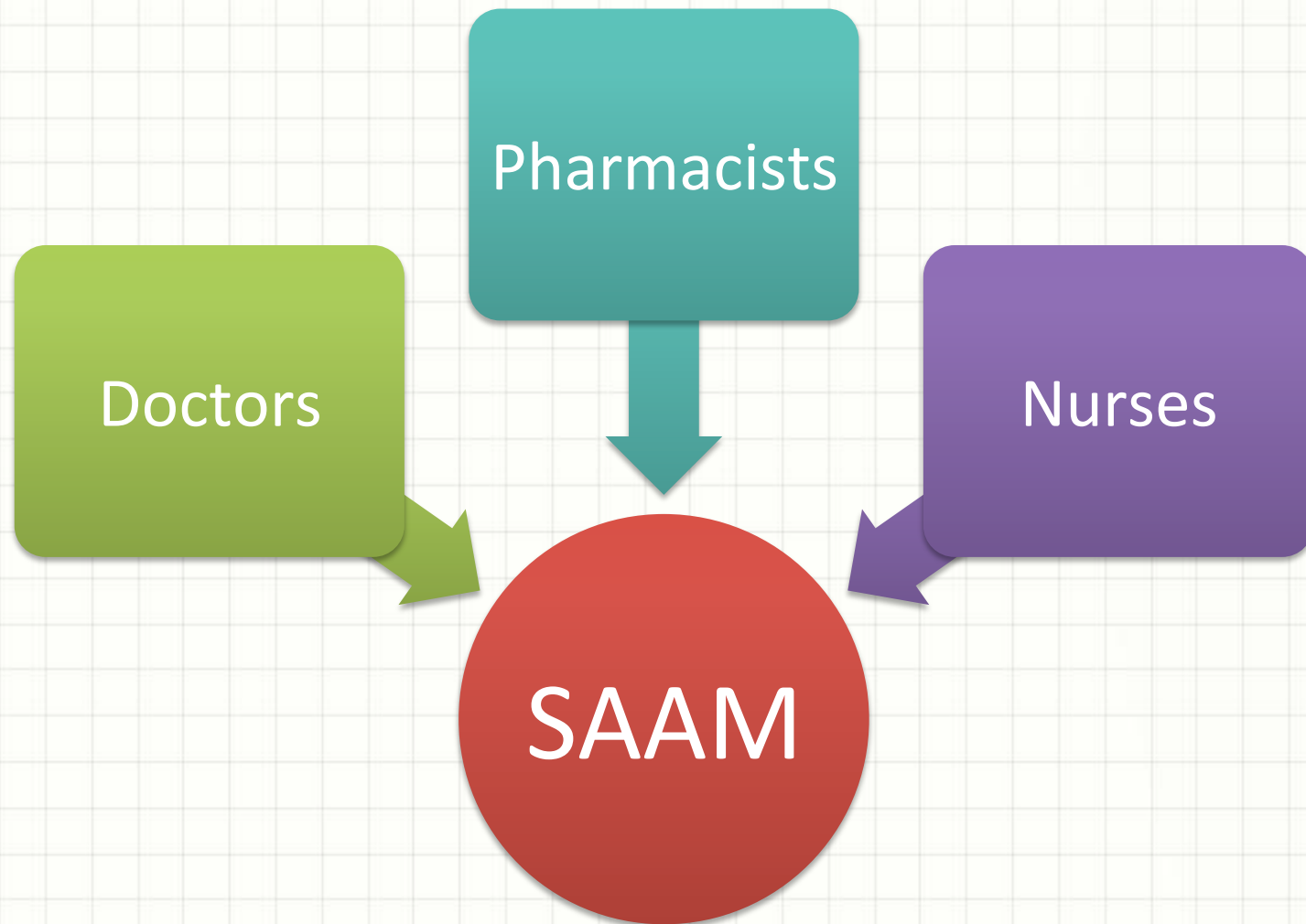
Mar 2014

Drug Allergy Checking

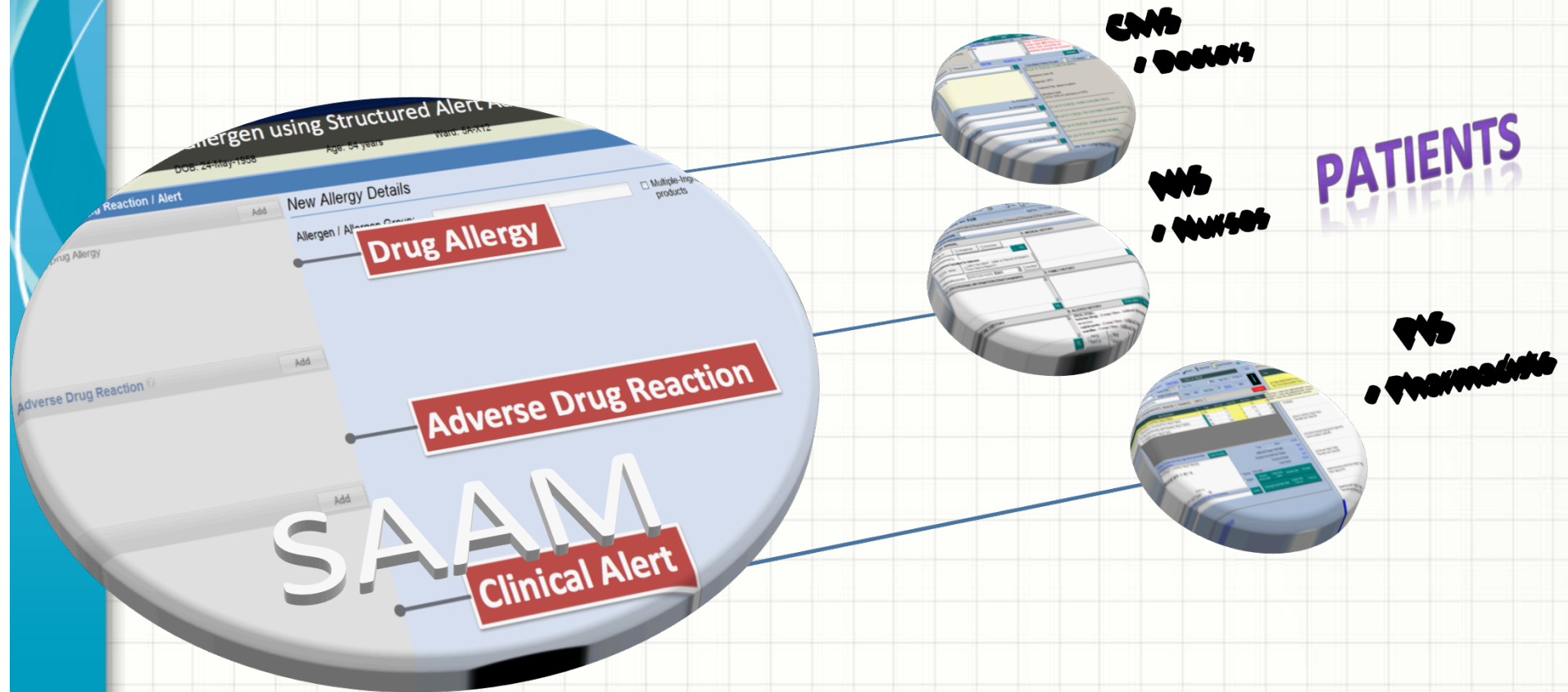
How do we engage?



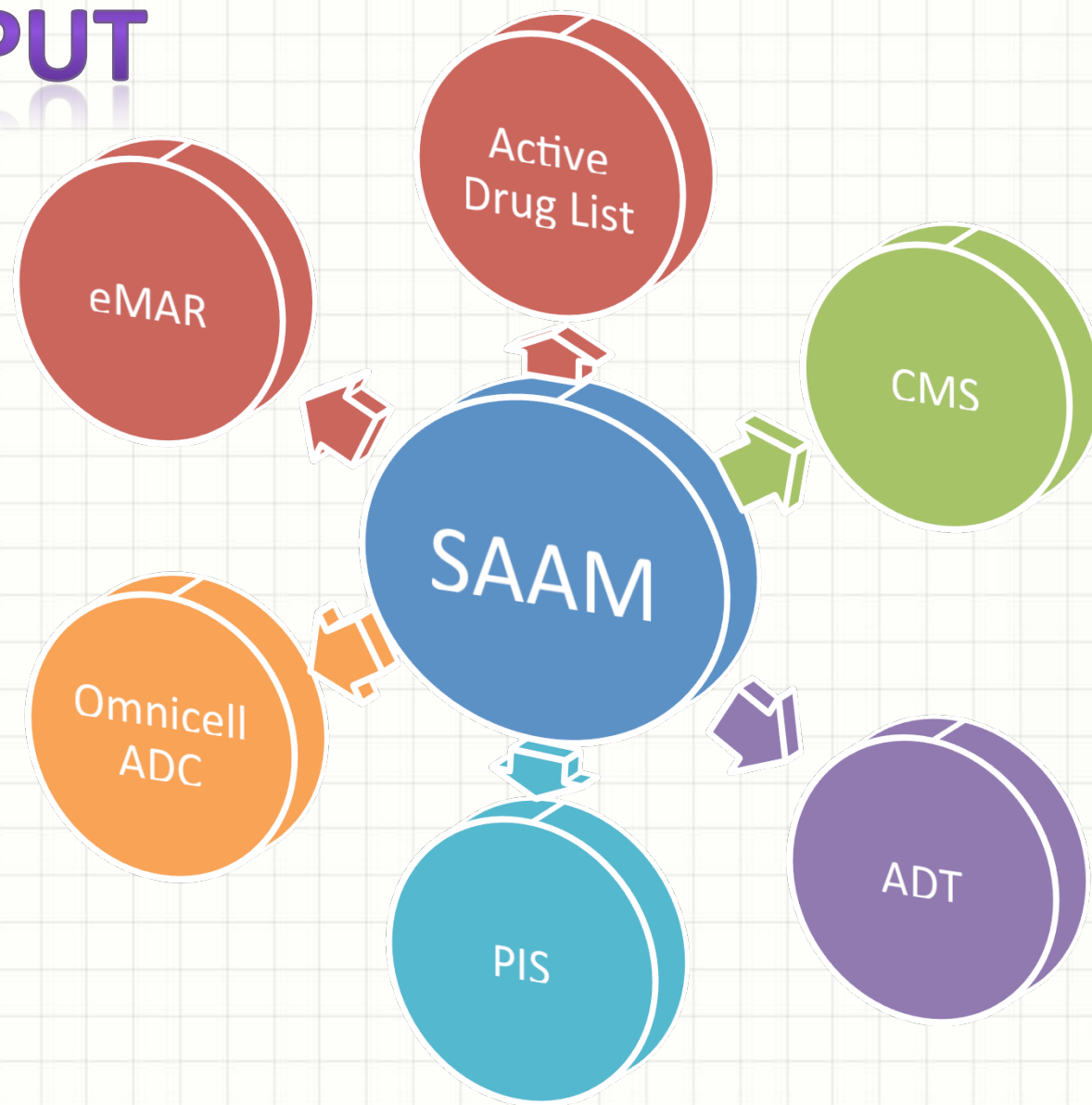
INPUT

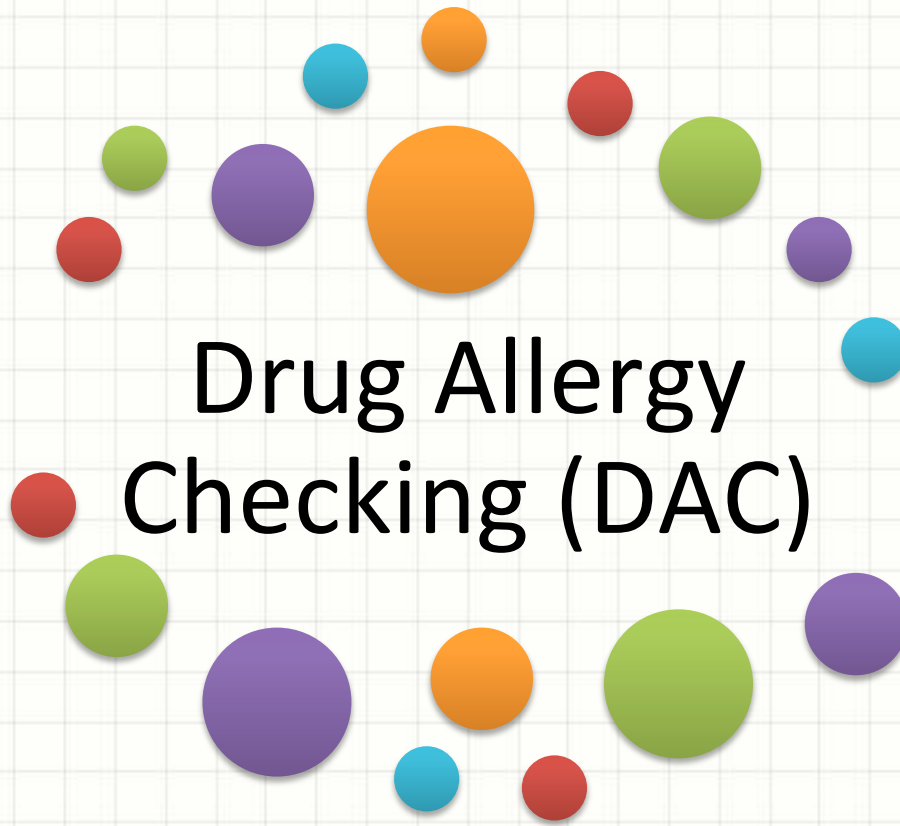


INPUT THROUGH DIFFERENT CLINICAL SYSTEMS

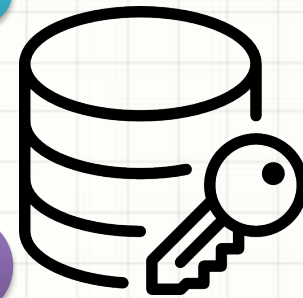


OUTPUT



A decorative graphic consisting of approximately 15 circles of various colors (orange, purple, green, red, blue) arranged in a loose circular pattern around the central text.

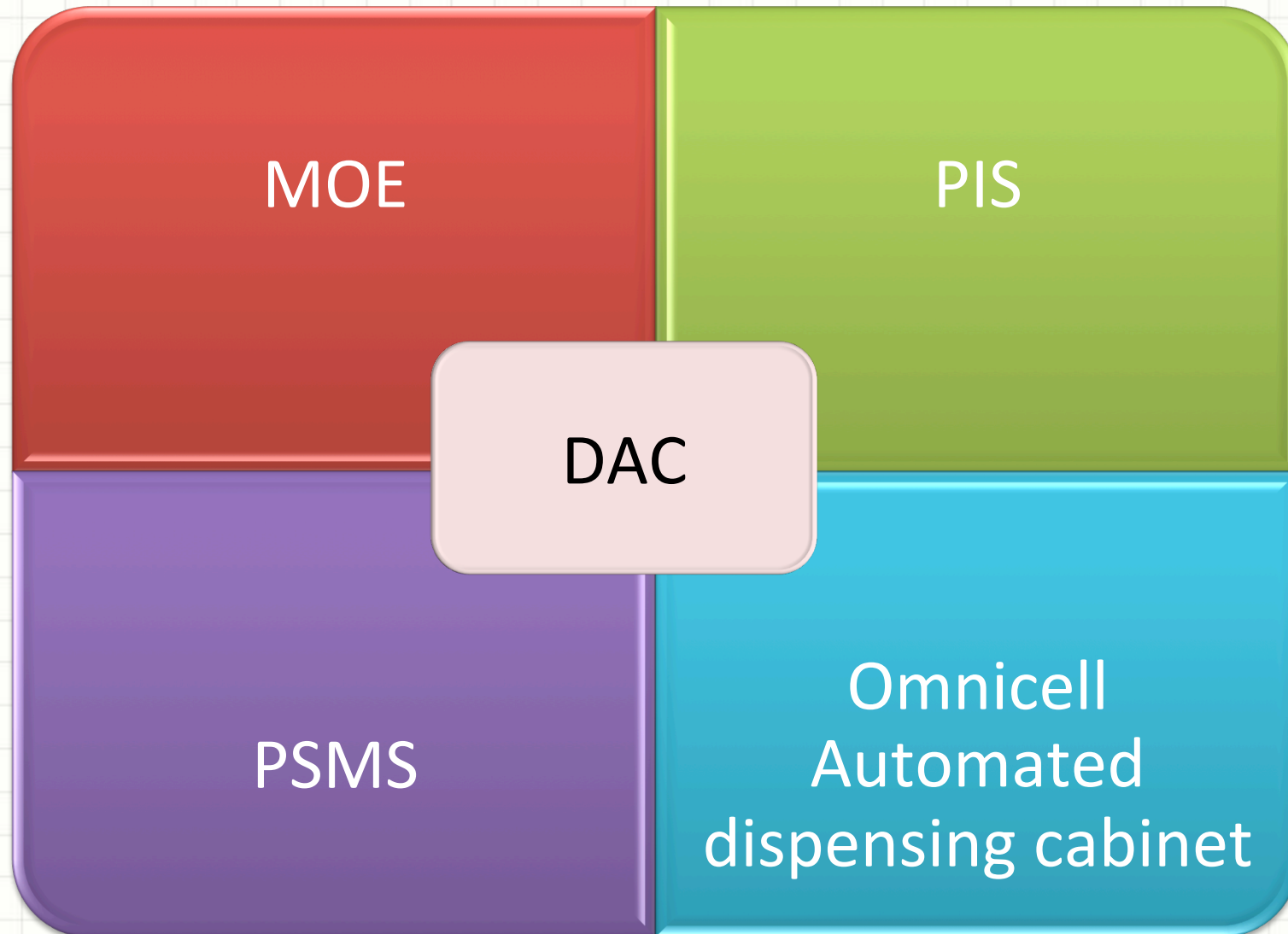
Drug Allergy Checking (DAC)



The scope of drug allergy checking

In eHR medication decision support functions...	
Phase 1 Drug allergy checking	Scope of checking: <ul style="list-style-type: none">• same active ingredient,• same base ingredient,• specific allergen groups (penicillins, cephalosporins, carbapenems) and• cross-sensitivity relationship among these allergen groups (beta lactam antibiotics)
	Checking only on drugs that are maintained in the drug knowledge database
	Excluded other drug alerts (e.g. ADR, G6PD, pregnancy)
Phase 2 Drug allergy checking	November 2016 One more allergen group ' NSAIDs ' is added .

Integration of Drug Allergy Checking



Drug Allergy Alert message upon DAC (Allergic reaction)

The screenshot shows a software window titled "Drug Allergy Checking". At the top, a red exclamation mark icon is next to the text "Allergic reaction found". Below this, it says "Drug : ASPILET (ASPIRIN) TABLET 80MG". A table with four columns (Allergen, Certainty, Manifestation, Remark) contains one row: Aspirin, CERTAIN, asthma, and an empty Remark field. Below the table, a text prompt asks for an override reason. Three checkboxes are listed: "Confirmed with prescriber that the patient can tolerate the drug" (circled in red), "Patient is administering this drug without allergic response.", and "Others (Please specify reason below)". A "Remarks" text area is below the checkboxes. At the bottom right are two buttons: "Dispense with reason" and "Do not Dispense".

Allergen	Certainty	Manifestation	Remark
Aspirin	CERTAIN	asthma	

If you wish to dispense anyway, you must provide the reason(s) for overriding this alert:

- ☒ Confirmed with prescriber that the patient can tolerate the drug
- ☐ Patient is administering this drug without allergic response.
- ☐ Others (Please specify reason below)

Remarks

Dispense with reason Do not Dispense

- ◆ Log down once this message is triggered
- ◆ Pharmacist verification (enter password) is required with override reason
- ◆ If the same allergen (VTM) is overridden once in the same visit, this message will not be pop up again.

Drug Allergy Alert message upon DAC

(Cross-sensitivity reaction)

Drug Allergy Checking

Cross sensitivity reaction found

Drug : ZINNAT TABLET 125MG

Allergen	Certainty	Manifestation	Remark
penicillins	CERTAIN	asthma	

If you wish to dispense anyway, you must provide the reason(s) for overriding this alert:

- ☐ Confirmed with prescriber regarding possible cross-sensitivity reaction and fill as directed.
- ☒ Confirmed with prescriber that the patient can tolerate the drug.
- ☐ Patient is administering this drug without allergic response.
- ☐ Others (Please specify reason below)

Remarks

- ◆ Pharmacist verification (with password) is required with override reasons

Overridden Drug

Standard (S) | Drug Return (F7) | Mixture (M) | Freehand (D) | Label (L) | Drug Allergy

Drug Code: **P00APL01** ASPILET (ASPIRIN) TABLET 80MG

Frequency Code	Frequency Description	Qty Per Time	Days of Taking

Issue Qty: 0 tablet(s)

Dosage Unit: tab(s)

Instruction: Take after meal

Precaution 1:

Precaution 2:

Standard (S) | Drug Return (F7) | Mixture (M) | Freehand (D) | Label (L) | Drug Allergy

Item Description	G	Type
1 ASPILET (ASPIRIN) TABLET 80MG	R	Std

Hints: Double click to edit, single click for preview label
* Omnicell Item

Order Grouping: ASPILET (ASPIRIN) TABLET 80MG(B)

Total: 3.00 29.00
Additional Charge / Mid-Night: 0.00

- ◆ Indicator of overridden drug
- ◆ When mouse over, the override information will be shown as tool tips

PSMS

Prescription Information System - Ver. 2.19

File Option Inquiry Rx Printing Help

Hospital / Queue No.

Check-Out Today

Allergy ☐ Allergy ☐ Adverse Drug Reaction Prescription Status ☐ 30 - 60 mins ☐ > 120 mins

Drug Label [F12]

Queue No.	Location Name	Type	Bed No.	Hospital No.
0268	Main Pharm	Disc.		
0274	Main Pharm	Disc.		
0275	Main Pharm	Disc.		
0276	Main Pharm	Disc.		
0872	Main Pharm	Regular		
0876	Main Pharm	Regular		
0879	Main Pharm	Regular		
0881	Main Pharm	Regular		
0882	Main Pharm	Regular		
0883	Main Pharm	Regular		
0885	Main Pharm	Regular		
0886	Main Pharm	Regular		
0887	Main Pharm	Regular		

Discharge MOE

Latest Check In

Remarks

Bed No.

Queue #

Search [F7]

Check in at ☒ All ☐ NW OP (G/F) ☐ Main Pharm. ☐ NW IP (1/F)

Prescription Information System - Ver. 2.19

File Option Registration Print Rx Printing About

Queue No.

Inspection Today

Allergy ☐ Allergy ☐ Adverse Drug Reaction ☐ DC Case ☐ 60 - 120 mins ☐ 30 - 60 mins ☐ > 120 mins

Drug Label [F12]

Q#	Pat. Type	Patient Name	Visit No.	Start Time	Time Spend	Time	Status	Pres. Type
0424	OP(Reg.)			16:58	6 min	16:59	Picking	Normal
0425	OP(Reg.)			16:58	5 min	17:01	Picking (EEC)	Normal
0426	OP(Reg.)			17:00	3 min	17:02	Picking	Normal
0427	OP(Reg.)			17:00	3 min	17:03	Picking	Normal
0428	OP(Reg.)			17:00	3 min	17:03	Picking	Normal

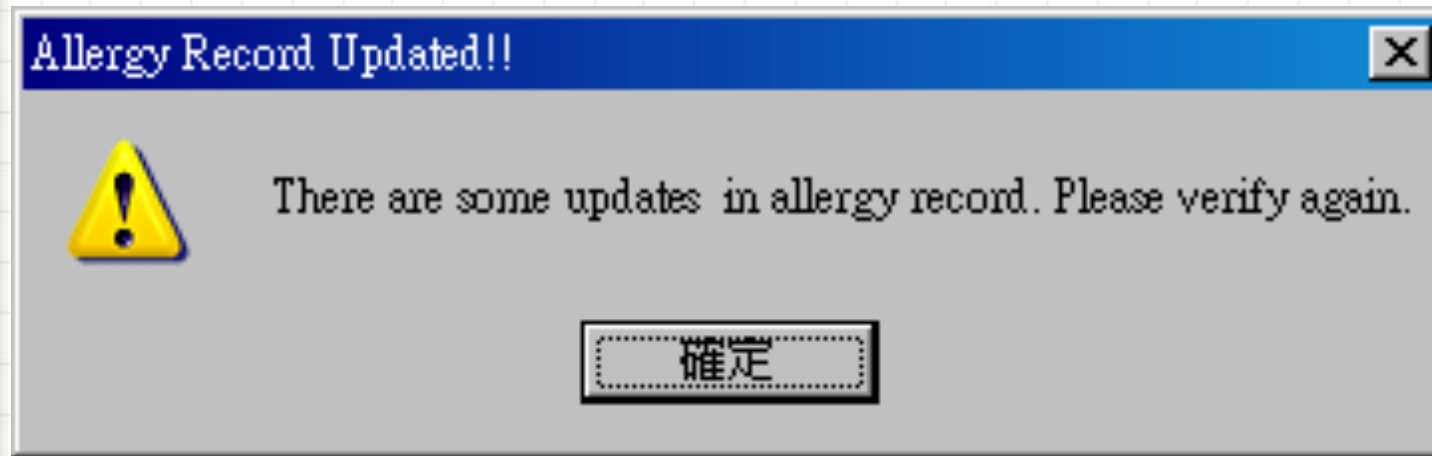
EEC(0425)

Que #	Visit No.	Patient No.	Patient Name	Search	Clear	Not Consulted	79
	OP201311					Not Labelled	3 Not Paid 7
						Not Inspected(All)	5 Not Issued 6

F4→ Delete F5→ Refresh F6→ Unlock Rx F7→ Reprint F8→ Inquiry F9→ Remarks

- ◆ Drug checking at check point **Check-Out** in IP-PSMS and **Inspection** in OP-PSMS

PSMS (Cont.)



- ◆ If there is any updates of allergy information after the printing of drug label, checker should pass back the prescription for the data entry user to follow-up

PSMS (Cont.)

Drug & Biologics Administration

Queue No. Pres. No. PR20130500021 Patient Name CHAN TAI MAN 陳太文

Visit No. HN20120500010 Age / Sex 25Yr10M / M Ward M5A Bed No 402-B

Patient Allergy record:

Allergen	Certainty	Manifestation	Remarks
aspirin	Certain	edema	
calamine + phenol + sulfur + zinc oxide	Certain	rash	
amoxicillin (as trihydrate)	Suspected	others	Testing record

Override drug order

Drug name	Override reason	Override Date	Override User	Verify User
ASPILET (ASPIRIN) TABLET 81MG (S)	Patient is administering this drug without allergic response	CHAN TAI MAN	CHAN SIU MAN	

Close

- ◆ Display if contain overridden drug order
- ◆ Upper table is allergy information from SAAM
- ◆ Lower table is the overridden drug
- ◆ Scan the queue no# again for check out

Omniceil ADC Allergy Checking using the allergen ID from HKMTT

The screenshot displays the Omnicell ADC Allergy Checking interface. On the left is a vertical navigation bar with four buttons: 'Previous Screen' (with a left arrow), 'Allergy Info', 'Patient Management', and 'Next Patient'. The main area shows a patient record with a blacked-out name and a red allergy warning: 'Allergies: Please refer to patient chart;penicillins;cephalosporins'. A large grey modal window is centered on the screen with the following text: 'Allergy Alert!!!', 'Possible Patient Allergy to Selected Medication', 'Check before administration', and 'AMPICILLIN INJ 500MG 500MG VIAL'. At the bottom of the modal are two buttons: a green 'OK' button and a blue 'Cancel' button. Below the modal, the text 'Sel Meds.' is partially visible.

Previous Screen

Allergy Info

Patient Management

Next Patient

Patient: [Redacted]

Allergies: Please refer to patient chart;penicillins;cephalosporins

Allergy Alert!!!

Possible Patient Allergy to Selected Medication

Check before administration

AMPICILLIN INJ 500MG 500MG VIAL

OK Cancel

Sel Meds.

What's Allergy Download?

Allergy data downloaded from other organizations into the local record

The screenshot shows a web application interface for managing allergy and adverse drug reaction data. The main header is blue and contains the text "Allergy / Adverse Drug Reaction / Alert" on the left, a button labeled "eHR Records" in the center, and the text "Last download on: 29-Jul-2015 15:21" on the right. Below the header, there are three sections: "Allergy", "Adverse Drug Reaction", and "Alert". Each section has a list of items and an "Add" button. The "Allergy" section contains the following items: "penicillins -> rash" (green), "ponstan" (green), and "Egg (Non-Drug)" (red). The "Adverse Drug Reaction" and "Alert" sections are currently empty. At the bottom of the interface, there is a legend with four items: "Structured" (black square), "Free Text" (red square), "Imported free text data" (green square), and "Deleted" (blue square). Below the legend are four buttons: "Log", "Preview", "Print", and "Close". A red callout box with a pointer to the "eHR Records" button contains the text: "Press 'eHR Records' to enter allergy download page".

Allergy / Adverse Drug Reaction / Alert

eHR Records Last download on: 29-Jul-2015 15:21

Allergy ? Add

penicillins -> rash

ponstan

Egg (Non-Drug)

Adverse Drug Reaction ? Add

Alert Add

Structured Free Text Imported free text data Deleted

Log Preview Print Close

Press "eHR Records" to enter allergy download page

Allergy Download Page



CHAN, SIU LING(陳小玲)

HKIC: A123456(7)

DOB: 01-Jan-2000

Age: 16 years

Ward: 5A-X12

Adm: 01-Jan-2016

Hospital No.: Z1234567

Last Download on: 28-May-2014 16:28

Allergen from eHR	HCP	Date
paracetamol		
paracetamol	STH	03-Sep-2013
Panadol (paracetamol)	EH	01-Aug-2013
paracetamol	HKAH	05-Jul-2013
Augmentin	STH	04-Jul-2013

Local Allergen	Date
penicillin-->rash	28-May-2014
ponstan	28-May-2014
egg	28-May-2014

ADR from eHR	HCP	Date
No Record		

Local ADR	Date
No Record	

☐ Show deleted record ☒ Structured ☒ Free Text ☒ Imported free text data[Remind me later](#)

Click ➡ to Copy Record
from eHR to Local Record **if necessary**

F CHAN, SIU LING(陳小玲)
HKIC: A123456(7) DOB: 01-Jan-2000 Age: 16 years Ward: 5A-X12 Adm: 01-Jan-2016 Hospital No.: Z1234567

Last Download on: 28-May-2014 16:28

Allergen from eHR	HCP	Date	Local Allergen	Date
paracetamol			penicillin-->rash	28-May-2014
paracetamol	STH	03-Sep-2013 ➡	ponstan	28-May-2014
Panadol (paracetamol)	EH	01-Aug-2013 ➡	egg	28-May-2014
paracetamol	HKAH	05-Jul-2013 ➡		
Augmentin	STH	04-Jul-2013 ➡		

Last Download on: 10-Jun-2014 14:36

Allergen from eHR	Date
paracetamol	
paracetamol	
Panadol (paracetamol)	
paracetamol	
Augmentin	Certain; Rash
Panadol	Allergy Remark: rash only on face
Ponstan	
penilin	

Mouse over to see details

ADR from eHR
No Record

Show deleted record Structured Free Text Imported free text data

Remind me later

What's Allergy Download?

F CHAN, SIU LING(陳小玲)
HKIC: A123456(7) DOB: 01-Jan-2000 Age: 16 years Ward: 5A-X12 Adm: 01-Jan-2016 Hospital No.: Z1234567

We have prefilled information for you, please verify and confirm

Allergy records from eHR		Allergy Details
Allergen	paracetamol	Allergen / Allergen Group <input type="text" value="paracetamol"/>
VTM	paracetamol	Level of Certainty <input checked="" type="radio"/> Certain <input type="radio"/> Suspected
Level of Certainty	Certain	Clinical Manifestation
Clinical Manifestation	Rash	<input type="checkbox"/> Allergic contact dermatitis <input type="checkbox"/> Fibrosing alveolitis <input type="checkbox"/> Allergic rhinitis <input type="checkbox"/> Fixed drug eruptions <input type="checkbox"/> Anaphylaxis <input type="checkbox"/> Generalised liver damage <input type="checkbox"/> Angioedema <input type="checkbox"/> Haemolytic anaemia <input type="checkbox"/> Anaphylaxis <input type="checkbox"/> Photosensitivity <input type="checkbox"/> Asthma <input type="checkbox"/> Pruritus <input type="checkbox"/> Acute urticaria <input checked="" type="checkbox"/> Rash <input type="checkbox"/> Cholestasis <input type="checkbox"/> Serum sickness <input type="checkbox"/> Eczema <input type="checkbox"/> Stevens-Johnson syndrome <input type="checkbox"/> Erythema nodosum <input type="checkbox"/> Toxic erythema <input type="checkbox"/> Erythroderma <input type="checkbox"/> Urticaria <input type="checkbox"/> Exfoliative dermatitis <input type="checkbox"/> Manifestation uncertain <input type="checkbox"/> Fever <input type="checkbox"/> Other allergic reaction
Allergy Remark	rash only on face	Additional Information <input type="text" value="rash only on face"/>
Allergen Note		
Upload HCP	St.Teresa's Hospital	
Last Updated	03-Sep-2013	

Save Undo Cancel

Clinical information is filled by system. In case no match is found, the information would put in **Additional Information**.

Paracetamol is filled by system

Paracetamol Added to Local Record Successfully

Last Download on: 30-May-2014 16:28

Allergen from eHR	HCP	Date
paracetamol		
paracetamol	STH	03-Sep-2013
Panadol (paracetamol)	EH	01-Aug-2013 →
paracetamol	HKAH	05-Jul-2013 →
Augmentin	STH	04-Jul-2013 →

Local Allergen	Date
paracetamol	30-May-2014
penicillin-->rash	28-May-2014
ponstan	28-May-2014
egg	28-May-2014

ADR from eHR	HCP	Date
No Record		

Local ADR	Date
No Record	

☐ Show deleted record ☒ Structured ☒ Free Text ☒ Imported free text data

Remind me later



Preparation works to enable DAC

Drug VTM Mapping table

Drug VTM Mapping				
Add Edit Export Exit				
Stock Code	Brand Name	HK Reg. No	VTM	Status
PPOATPL01	ACTAL PLUS CHEWABLE TABLET	49843	alexitol sodium + magnesium hydroxide + simeticone	Active
PIJATMA03	ACTEMRA (TOCILIZUMAB) INJECTION 200MG/10ML ^	59201	tocilizumab	Active
PIJATMA01	ACTEMRA (TOCILIZUMAB) INJECTION 400MG/20ML ^	59200	tocilizumab	Active
PIJATMA02	ACTEMRA (TOCILIZUMAB) INJECTION 80MG/4ML ^	59202	tocilizumab	Active
PLQATF001	ACTIFED CO SYRUP [OR EQV.]	03785	codeine phosphate + pseudoephedrine hydrochloride +	Active
PLQATF01	ACTIFED SYRUP [OR EQV.]	34816	pseudoephedrine hydrochloride + triprolidine hydrochloride	Active
PPOATT01	ACTIFED TABLET [OR EQV.]	38724	pseudoephedrine hydrochloride + triprolidine hydrochloride	Active
PIJATL01	ACTILYSE (ALTEPLASE) INJECTION 50MG ^	30511	alteplase	Active
PPOATVL01	ACTIVEVLE TABLET 28'S/BOX	44368	estradiol + norethisterone acetate	Active
PPOATNL04	ACTONEL ONCE-A-MONTH (RISEDRONATE) TABLET	60147	risedronate sodium	Active
PPOATNL02	ACTONEL ONCE-A-WEEK (RISEDRONATE) TABLET	50537	risedronate sodium	Active
PPOATS01	ACTOS (PIOGLITAZONE) TABLET 30MG	47884	pioglitazone (as hydrochloride)	Active
PIJATPH01	ACTRAPID HM (INSULIN) INJECTION 1000IU/10ML	21401	insulin soluble human	Active
PIJATPH03	ACTRAPID HM (INSULIN) PENFILL 300IU/3ML	25781	insulin soluble human	Active
PEXACCV01	ACYCLOVIR CREAM 5% 5GM	41418	aciclovir	Active
PPOADL01	ADALAT (NIFEDIPINE) CAPSULE 5MG [OR EQV.]	39895	nifedipine	Active
PPOADLG01	ADALAT GITS (NIFEDIPINE) TABLET 30MG	37008	nifedipine	Active
PPOADLG02	ADALAT GITS (NIFEDIPINE) TABLET 60MG	37007	nifedipine	Active
PPOADLR01	ADALAT RETARD (NIFEDIPINE) TABLET 20MG	25208	nifedipine	Active
PIJADMN01	ADDAMEL N INJECTION 10ML	36375	chromic chloride + copper chloride + ferric chloride +	Active
PIJADNS01	ADENOSCAN (ADENOSINE) INJECTION 30MG/10ML ^	43112	adenosine	Active
PIJADNL01	ADRENALINE INJECTION 1:1000 1MG/ML	00410	epinephrine (as bitartrate)	Active
PIJADNL02	ADRENALINE INJECTION 1:10000 1MG/10ML	18103	epinephrine (as bitartrate)	Active
PEXAVT03	ADVANTAN (METHYLPREDNISOLONE) CREAM 0.1%	44085	methylprednisolone aceponate	Active
PEXAVT04	ADVANTAN OINTMENT 0.1% 15GM	43682	methylprednisolone aceponate	Active
PLQARS01	AERIUS (DESLORATADINE) SYRUP 2.5MG/5ML	51453	desloratadine	Active
PPOARS01	AERIUS (DESLORATADINE) TABLET 5MG	51882	desloratadine	Active
PPOAFT04	AFATINIB TABLET 20MG	63508	afatinib (as maleate)	Active
PPOAFNT01	AFINITOR (EVEROLIMUS) TABLET 5MG ^	59080	everolimus	Active
PPOAFX01	AFLOXAN (PROGLUMETACIN) CAPSULE 150MG	15370	proglumetacin maleate	Active
PPOAFX02	AFLOXAN TABLET 300MG	38549	proglumetacin maleate	Active
PNPAF04	AFRIN (OXYMETAZOLINE) NASAL SPRAY 0.05%	01416	oxymetazoline hydrochloride	Active
PPOAGN01	AGGENOX MODIFIED RELEASE CAPSULE	59999	gabapentin hydrochloride	Active

* Double click to edit the drug group

Record Count : 1/2127

Edit Drug VTM Mapping

The image displays two screenshots of the 'Add/Edit Drug VTM mapping' software interface, illustrating the mapping process for the drug 'AMBISOME INJECTION 50MG' (Stock code: PAIABS01).

Left Screenshot (Initial Mapping):

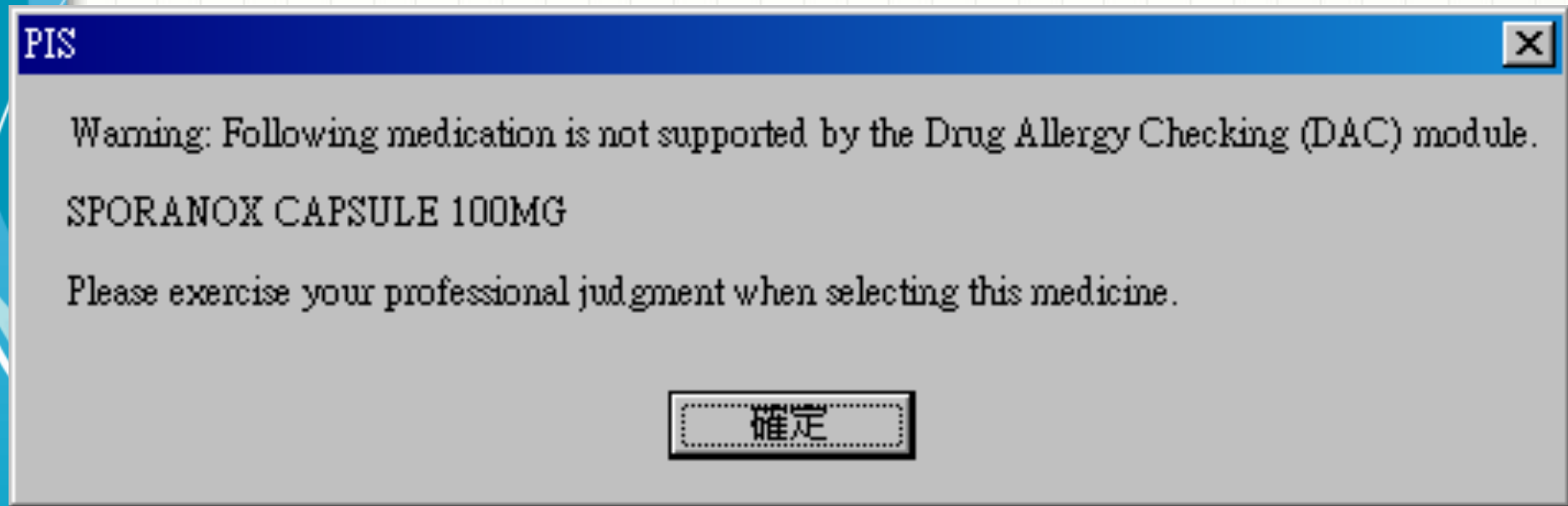
- Brand Name: AMBISOME INJECTION 50MG ^
- Stock code: PAIABS01
- HK Reg No: 43591 (circled in red)
- By VTM: [Button]
- VTM: amphotericin B (as liposomal)
- AMP: AmBisome (amphotericin B (as liposomal)) intravenous powder solution for infusion 50 mg / vial
- Last update by: CHAN TAI MAN
- Last update date: 10-10-2013 15:23

Right Screenshot (Mapping by HK Reg No):

- Brand Name: AMBISOME INJECTION 50MG ^
- Stock code: PAIABS01
- VTM: amphotericin B (as liposomal) (circled in red)
- By HK Reg No: [Button]
- AMP: amphotericin B (as liposomal)
- Last update by: CHAN TAI MAN
- Last update date: 10-10-2013 15:23

- ◆ Each drug item mapped to 1 HK Registration number or VTM

Drug without VTM mapping

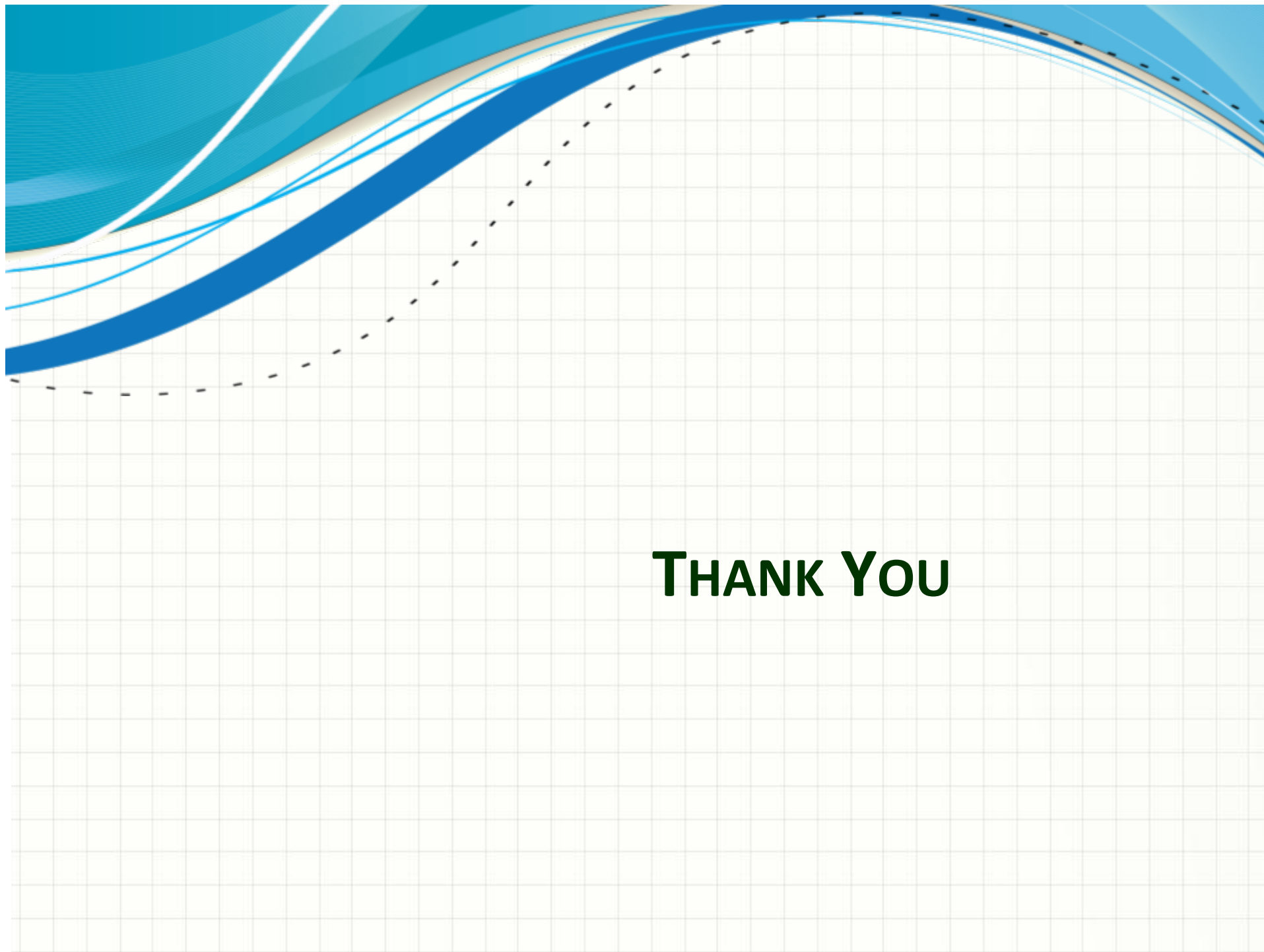


- ◆ Remind message displayed when the Drug VTM mapping is missing for the selected drug



Benefits for eHR Standard & clinical apps

- Serious allergic and anaphylactic reactions can be effectively prevented when known drug allergens are prescribed, dispensed and administered to patients in hospitals – Medication Safety
- Document Allergy and Adverse Drug Reaction Records in Structured manner - for all drugs in the local market
- Engage a more comprehensive drug allergy checking – with more structured entries
- Shared Records among different professionals in a common platform – better communication
- Interoperability from different healthcare sectors – further enhanced patient safety
- Provide comprehensive audit trails for all editing activities



THANK YOU