



Clinical Pharmacology product presentation

2019

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目前醫院所擁有的Micromedex模組

- DRUGDEXR System(藥物索引系統)
- DRUG-REAXR System(藥物交互作用系統)
- IV INDEX System(靜脈注射相容性索引系統)

但這樣就夠了嗎？

有沒有甚麼資料是你還想要的呢？

1. 會不會有臨床需求要改藥的時候，需要不斷的查找資料？
2. 是否有老人用藥的需求？
3. 小朋友的劑量要怎麼給呢？
4. 化療用藥regimen的搭配組合？
5. 常用的藥物計算機？
6. 同類型藥物的比較整理(efficacy、dosage、clinical outcome)？
7. 毒物資訊？
8. 手機APP或者臨時需要上線卻上不去呢？

Clinical Pharmacology同時都能夠提供

- Elsevier出版的最新藥學資料庫、不僅能夠符合您目前的需求，還能夠給予您更多。
- 1. 採IP授權機制，無同時上線人數限制
- 2. 手機APP免費提供
- 3. 即時更新(24/7 全天候即時更新)
- 4. 搜尋及資料排列方式更貼近臨床想法



產品介紹-搜尋介面介紹

Clinical Pharmacology powered by ClinicalKey®

All Categories ▾ Search for drugs, indications, reactions, and more... 

Quick Links [Drug Identifier](#) [Drug Interaction Report](#) [ToxED](#)

Common Reports

- [Drug Interaction Report](#)
- [IV Compatibility](#)
- [Product Comparisons](#)

Common References

- [Calculators](#)
- [Drug Class Overviews](#)
- [ToxED](#)

Additional Resources

- [BEERS Drug List](#)
- [Confused Drug Names](#)
- [Register and Download Mobile App](#)

[f](#) [in](#) [t](#) [G+](#)

智慧型搜尋介面、單頁面顯示所有功能，簡易排列方便找尋您所需的資料



19.02.2019

產品介紹-常用報告系統 Drug interaction

Clinical Pharmacology
powered by ClinicalKey®

Search Reports Lists Resources

Login Register ? ≡

Press F11 to exit full screen

Drug Interaction IV Compatibility Product Comparison Adverse Reaction Clinical Comparison

Drug Interaction Report

Search for a drug to add to report:

Find by drug name

Drug List:

- ✕ Warfarin Sodium Oral tablet
- ✕ Ginkgo Biloba Oral capsule

✕ Clear All

Considerations:

☒ Select All

- ☒ Alcohol ☒ Food
- ☒ Caffeine ☒ Grapefruit juice
- ☒ Enteral Feedings ☒ Tobacco

☒ Include Duplicate Therapy Information

Report Type:

- ☒ Professional
- ☐ Consumer

Run Report

Drug Interaction Report for Healthcare Professionals

For the following medication(s):

- Warfarin Sodium Oral tablet
 - Ginkgo Biloba Oral capsule
- Also with:
- Alcohol, Caffeine, Enteral Feedings, Food, Grapefruit juice, Tobacco

Findings:

> Level 1 (Severe) ⓘ

(no results)

▼ Level 2 (Major) ⓘ

(5 results)

Drug to Drug Interactions

Anticoagulants and Ginkgo

Anticoagulants cause additive bleeding with Ginkgo Biloba Extract

Ginkgo, Ginkgo biloba is reported to inhibit platelet aggregation and several case reports describe bleeding complications with Ginkgo biloba, with or without concomitant drug therapy. Since ginkgo produces clinically-significant antiplatelet effects, it should be used cautiously in patients drugs that inhibit platelet aggregation or pose a risk for bleeding, such as anticoagulants. Ginkgo, Ginkgo biloba is reported to inhibit platelet aggregation and several case reports describe bleeding complications with Ginkgo biloba, with or without concomitant drug therapy. Since ginkgo produces clinically-significant antiplatelet effects, it should be used cautiously in patients drugs that inhibit platelet aggregation or pose a risk for bleeding, such as anticoagulants (e.g., warfarin), aspirin, ASA or other platelet inhibitors, or thrombolytic agents. A patient who had been taking aspirin 325 mg/day PO for 3 years following coronary-artery bypass surgery, developed spontaneous bleeding into his eye after taking a standardized extract of Ginkgo biloba

可同時輸入所有想查找藥品

可根據病人狀況加入需考量因素

系統自動產生所有您應該知道的藥物交互作用，並顯示該級別所代表的含意

Level 2 (Major) The use of these medications together may be contraindicated in a select group of patients. Further therapy and/or an alteration in therapy may be necessary to avoid or limit the potential for interaction. The patient should be monitored for possible manifestations of the interaction.

產品介紹-常用報告系統 IV Compatibility

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Search Reports Lists Resources

Drug Interaction IV Compatibility Product Comparison Adverse Reaction Clinical Comparison

IV Compatibility Report

可同時輸入所
有想查找藥品

Search for a drug to add to report:

Find by drug name



Drug List:

× D5W-Dextrose 5%

× Meropenem

× Vancomycin hydrochloride

× Clear All

Legend

⊕ = Compatible

⊖ = Incompatible

⚠ = Results uncertain, variable or dependent on conditions

ND = No Data Available

Run Report

From Trissel's 2TM Clinical Pharmaceuticals Database

Ysite

	D5W-Dextrose 5%	Meropenem	Vancomycin hydrochloride
Meropenem	ND	-	⊕
Vancomycin hydrochloride	ND	⊕	-

For Dilution/In Solution

	D5W-Dextrose 5%
Meropenem	⚠
Vancomycin hydrochloride	⊕

Admixture

	Meropenem	Vancomycin hydrochloride
Meropenem	-	⊕
Vancomycin hydrochloride	⊕	-

表格化排列，方便易讀

資料來源:

1. Trissel's 2 Clinical pharmaceuticals database
2. We conduct rigorous ongoing IV compatibility studies, *exclusively from Elsevier*.

除了有大家相信的Trissel's外，Elsevier還有額外加入了正在進行中study的資料，讓資料更完整

產品介紹-常用報告系統 ADR

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Search

Reports

Lists

Resources

Login

Drug Interaction

IV Compatibility

Product Comparison

Adverse Reaction

Clinical Comparison

Adverse Reactions Report

Search for Drug, Select to Add to Report:

Find by drug name



Drug List:

✕ Haloperidol

✕ Penicillin G

✕ Vancomycin

✕ Clear All

Group Report:

☐ Alphabetically

☒ By Frequency

Run Report

排列方式可依字母序排列、
或ADR發生frequency排列

Adverse Reactions Report for:

- Haloperidol
- Penicillin G
- Vancomycin

3 of these drugs may cause:

Adverse Reaction	Associated Drugs
anaphylactoid reactions	Haloperidol Penicillin G Vancomycin
eosinophilia	Haloperidol Penicillin G Vancomycin
exfoliative dermatitis	Haloperidol Penicillin G Vancomycin
fever	Haloperidol Penicillin G Vancomycin

產品介紹-常用報告系統 Clinical Comparison

- 若臨床上病人有heart failure的狀況，但又需要服用降血壓藥，這時候需要給甚麼藥呢？

1. Key入所有可能的藥名
2. 選擇你想要的indication並同時考慮是否有contraindication
3. 按run report

Add Topics to Report:

NOTE: Topics are filtered by drug list

Indications (52)



Contraindications / Precautions
(126)



Adverse Reactions (189)



Drug Interaction IV Compatibility Product Comparison Adverse Reaction Clinical Comparison

Clinical Comparison Report



Search for a drug to add to report:

Find by drug name

Search for a drug by classification:

Open Classification List

Drug List:

✕ Amlodipine

✕ Atenolol

✕ Captopril

✕ Fosinopril

✕ Lisinopril

✕ Clear All

Add Topics to Report:

NOTE: Topics are filtered by drug list

Indications (52) Contraindications / Precautions (126) Adverse Reactions (189)

Topic List:

✕ heart failure **1**

	Amlodipine	Atenolol	Captopril	Fosinopril	Lisinopril	Propranolol	Warfarin
Can be used for heart failure?	No	No	Yes	Yes	Yes	Yes †	Yes †

† non-FDA-approved indication

從表格中可以查出那些藥是可以用以及不可以用，而在顯示Yes的旁邊有†的意思是代表off label use，可點擊進去查詢詳細資料及相關reference

Propranolol

All Populations Monograph

Pediatric Monograph

Blackbox

Confused Name

Beers Criteria

Acute High Alert

AMB High Alert

NTI

Summary

Indications/Dosage

How Supplied

Description/Classification

Administration

Adverse Reactions

Contraindications/Precautions

Mechanism of Action

Pharmacokinetics

Pregnancy/Lactation

Interactions

Monitoring Parameters

IV Compatibility

FormChecker

Pharmacist's Letter

Indications/Dosage

Jump to Indication

For the treatment of heart failure† (ischemic origin or cardiomyopathy†) usually in conjunction with digoxin, diuretics, or ACE inhibitor therapy in children and infants

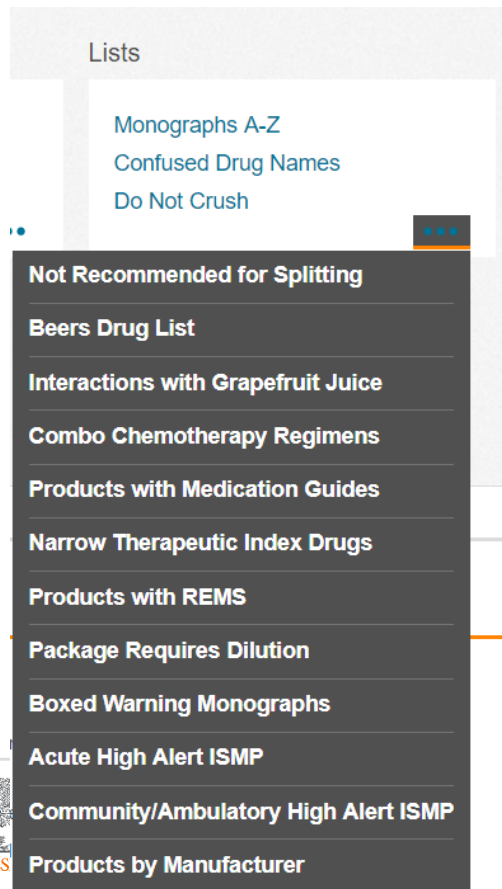
Strength of Recommendation: ☐ ☒ ☐ Equivocal/Weak ForLevel of Evidence: Very Low, [Detailed Level of Evidence](#)

Oral dosage (immediate-release formulations)

● Infants and Children

Initially, 0.5 to 1 mg/kg/day PO, given in divided doses every 6 to 8 hours has been recommended for sympathetic inhibition. Titrate dosage gradually every 3 to 14 days to a target dose of 2 mg/kg/day PO (range: 1.5 to 3 mg/kg/day). Monitor heart rate and blood pressure. [53738] [53739] [53740]

產品介紹 - List



- 針對各種常見的藥品屬性及特性做了整理，包含：

- a. Beers Drug list
- b. Combo chemotherapy Regimens
- c. Boxed warning Monographs...等

除此之外，在藥品查詢介面中，若有該屬性，也會在頁面中顯示(如果有，就會亮起橘燈)

Desipramine

A All Populations Monograph

Blackbox

Confused Name

Beers Criteria

Acute High Alert

AMB High Alert

NTI

產品介紹 - Resources

Resources

Patient Education
Drug Identifier
Clinical Calculators



Drug Class Overviews

Lab Reference Values

Harriet Lane

ToxED

Vaccine Information Statements

Pharmacist's Letter

Prescriber's Letter

Natural Medicines Database

Form Checker

Implementation and Training

- 在這邊多增了許多好用的內容，例如
 - a. Drug identifier
 - b. Clinical Calculator
 - c. Drug class overview
 - d. Lab reference values
 - e. ToxED(毒物資料庫)

產品介紹 – Resources – Drug identifier

Clinical Pharmacology
powered by ClinicalKey®

Search

Reports

Lists

Resources

Login

Patient Education

Drug Identifier

Clinical Calculators

Drug Class Overviews

Lab Reference Values

Harriet Lane

ToxED

...

Drug Identifier

Displaying 1 - 6 of 6

選擇您想查找的顏色、形狀及文字，系統會自動幫您比對

Imprint or Marking for Side 1:



Imprint or Marking for Side 2:



Colors

white

black

brown

gray

green

orange

pink

purple

red

turquoise

yellow

diamond

none

round

capsule

bullet

clover

diamond

double circle

heptagon (7 sided)

hexagon (6 sided)

octagon (8 sided)

other

oval

Search

Lamotrigine 200mg Tablet

Teva Pharmaceuticals USA

Lamotrigine 200 mg

blue, diamond-shaped, scored, side 1:9 3, side 2:7248



Viagra 100mg Tablet

Pfizer Inc.

Sildenafil Citrate 100 mg

blue, diamond-shaped, side 1:PFIZER, side 2:VGR 100



Viagra 100mg Tablet

Pfizer Inc.

Sildenafil Citrate 100 mg

blue, diamond-shaped, side 1:PFIZER, side 2:VGR 100



Viagra 25mg Tablet

Pfizer Inc.



19.02.2019

產品介紹 – Resources – Clinical Calculator

Emergency/Resuscitation Medication Calculator

- [Adult Emergency Medication Calculations](#)
- [Neonatal Emergency Medication Calculations](#)
- [Pediatric Emergency Medication Calculations](#)

Acetaminophen

- [Acetaminophen \(Paracetamol\) Toxicity Assessment](#)

Adverse Drug Reactions

- [Adverse Drug Reactions Probability Assessment](#)

Aminoglycosides

- [Amikacin Dosing q24hr \(also Kanamycin and Streptomycin\)](#)

Benzodiazepines

- [Benzodiazepine Dosing Conversions](#)

Carboplatin

- [Carboplatin AUC Dose Calculation \(Calvert\)](#)

Corticosteroids

- [Corticosteroid Medication Dosing Conversions](#)
- [Corticosteroid Medication Dosing Conversions](#)

Digitalis

- [Digitalis Body Load](#)

Epoprostenol (Flolan)

Epoprostenol (Flolan)

- [Epoprostenol \(Flolan\) Infusion Rate](#)

Ethanol

- [Blood Ethanol Concentration Estimation](#)

Fentanyl

- [Fentanyl Patch Initial Dosing Estimation](#)

Formulary Management

- [Checklist Tool for Guiding Formulary](#)

General Dosing

Heparin

- [Adult Heparin Dosing - Initial](#)
- [Adult Heparin Follow-up Dosing](#)
- [Pediatric Heparin Dosing - Initial](#)
- [Pediatric Heparin Follow-up Dosing](#)

Iron Salts

- [Iron Dextran Replacement Dosing for Iron Deficiency](#)
- [Iron Replacement \(parenteral dosing\) for Iron Deficiency](#)

Opioid Dose Conversion

- [Opioid Medication Dose Conversions](#)

Phenytoin



產品介紹 – Resources – Clinical Calculator

Clinical Calculators

Drug Calculators

Clinical Criteria/Decision Trees

Calculators

Medical Calculators

Unit Conversions Calculators

Vancomycin Dosing to Produce Desired Peak and Trough Levels

$$K_e = (0.00083 * CrCl) + 0.0044$$

$$\text{DosingInterval} = ((1 / K_e) * \ln(\text{DesiredPeak} / \text{DesiredTrough})) + \text{InfusionTime}$$

$$\text{LoadingDose} = (VD * \text{InfusionTime} * K_e * \text{DesiredPeak}) / (1 - e^{-(K_e * \text{InfusionTime})})$$

$$\text{MaintenanceDose} = (VD * \text{InfusionTime} * K_e * \text{DesiredPeak} * (1 - e^{-(K_e * \text{DosingInterval})})) / (1 - e^{-(K_e * \text{InfusionTime})})$$

Input:

Sex Female ☒ Male ☐

Age yr ▼

Height in ▼

Weight kg ▼

Serum Creat mg/dL ▼

Distribution Factor ☐ 0.5 L/kg (0.5)

☐ 0.6 L/kg (0.6)

☒ 0.7 L/kg (0.7)

☐ 0.75 L/kg (0.75)

☐ 0.8 L/kg (0.8)

☐ 0.9 L/kg (0.9)

Infusion Time 1 hr ▼

Desired Peak mg/L ▼

Desired Trough mg/L ▼

Results:

IBW kg ▼

CrCl mL/min ▼

K_e hr⁻¹

Half Life hr ▼

VD L ▼

Dosing Interval hr ▼

Loading Dose mg ▼

Maintenance Dose mg ▼

Decimal Precision: 2 ▼

Print

以Vancomycin為例，
可利用此calculator
輸入相關的參數，
計算出須給的劑量。



19.02.2019

產品介紹 – Resources – Drug class overview

Patient Education Drug Identifier Clinical Calculators Drug Class Overviews Lab Reference Values Harriet Lane ToxED ...

Beta-Blockers (systemic)

Drug Class Overviews

Aldosterone Receptor Antagonists
Alpha Blockers
Amphetamine Stimulants for Attention Deficit Hyperactivity Disorder (ADHD)
Angiotensin Receptor Blockers (ARBs)
Angiotensin-Converting Enzyme (ACE) Inhibitors
Aromatase Inhibitors
Atypical Antipsychotics
Azole Antifungals (systemic)
Benzodiazepines

Therapeutic Use

Therapeutic Use Table

☒ Export to CSV (Excel)

Indications	Acebutolol Hydrochloride	Atenolol	Betaxolol Hydrochloride	Bisoprolol Fumarate	Carvedilol	Esmolol Hydrochloride	Labetalol Hydrochloride	Metoprolol Succinate	Metoprolol Tartrate
Renal Impairment Dosing Adjustment	Yes	Yes	Yes	Yes		Yes			
Hepatic Impairment Dosing Adjustment	Yes			Yes	Yes		Yes	Yes	Yes
acute myocardial infarction					Yes	Yes †			
alcohol withdrawal		Yes †							
angina	Yes †	Yes		Yes †	Yes †			Yes	Yes
atrial fibrillation		Yes †		Yes †	Yes †	Yes		Yes †	Yes †
atrial flutter		Yes †		Yes †	Yes †	Yes		Yes †	Yes †
esophageal varices									
heart failure				Yes †	Yes			Yes	Yes
hypertension	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
hypertensive emergency						Yes †	Yes		
hypertensive									

這裡以Beta blockers為例，每個族群皆有以下的專題介紹及整理，並且都整理成表格，方便您閱讀及查找。

Summary

Pharmacology

Therapeutic Use

Comparative Efficacy

Adverse Reactions / Side Effects

Drug Interactions

Safety Issues

產品介紹 – Resources – Drug class overview

Patient Education Drug Identifier Clinical Calculators Drug Class Overviews Lab Reference Values Harriet Lane ToxED ...

Beta-Blockers (systemic)

Drug Class Overviews

Summary

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Safety Issues

Beta-Blocker Comparative Efficacy Trials

Citation / Study	Design/Regimen	Results*	Conclusion
Kardas P, et al. Vasc Health Risk Manag. 2007;3:235-242. [50416]	Randomized, controlled, 8-week trial assessing quality of life of beta-blocker-naïve patients with angina	overall compliance: 86.5 ± 21.3% in the betaxolol group vss 76.1 ± 26.3% in the metoprolol group (p<0.01)	Patient compliance with once-daily betaxolol is significantly better than with twice-daily metoprolol.
	Once daily betaxolol (n=47)	Both studied drugs had similar antianginal effectiveness. Health-related quality of life improved in both groups. The increase was more pronounced in the betaxolol arm	Betaxolol provides better quality of life.
	Twice daily metoprolol (n=49)		These results demonstrate possible therapeutic advantages of once-daily over twice-daily beta-blockers in the treatment of stable angina pectoris
van der Does R, et al. Am J Cardiol. 1999;83:643-649. [50417]	Double-blind, randomized, 3-month multicenter trial assessing safety/tolerability and antianginal efficacy in patients with stable angina	Rate of adverse events: No difference between the 2 groups; no rebound phenomena were observed	Carvedilol and metoprolol were similar in efficacy and tolerability.
	Twice-daily carvedilol (n=247)	Both drugs showed comparable antianginal efficacy	
	Twice-daily metoprolol (n=120)		
Schellenberg R et al., Headache. 2008; 48(1):118-125 [50422]	Randomized, double-blind, comparative, 14-week trial in patients diagnosed with migraine	Frequency of migraine attacks: No difference between groups.	Nebivolol is as effective as metoprolol in the prophylaxis of migraine attacks, with a better tolerability profile.
	Nebivolol (n = 16)	Time to therapeutic response, attack duration, and headache intensity: No significant difference between groups.	Further and larger trials should be conducted on nebivolol in the prevention of migraine attacks as it may

相關的study也幫您用表格的方式整理好了，並且同時附上出處，讓您可以連結回全文(此處僅提供連結)，查找詳細資訊。

產品介紹 – Resources - ToxED

TOXED
The Clinician's Toxicology Resource

Home | Help | Cor

TOXED TOPICS

Search Terms

Q

CALCULATORS

LAB VALUES

ADDITIONAL RESOURCES

Sections

→ Points of Care

→ Description

→ Toxicology

→ Clinical Presentation

→ Diagnosis


→ **Management**

→ Patient Disposition

→ Pitfalls in Management

Allenic Norleucine - Amanita abrupta, Amanita smithiana, etc.

Author/Reviewers:



Points of Care

CLINICAL PRESENTATION [More Detail](#)

- Severe renal failure has been reported with ingestion of as few as two button mushrooms in a previously healthy adult, and one large mushroom in an elderly adult with pre-existing renal failure.
- Gastrointestinal upset (nausea, vomiting, non-bloody diarrhea, abdominal pain) is the earliest finding, with an onset of 5 to 14 hours. Moderate hepatic injury may occur, with AST 15 times normal, or there may be no liver involvement.
- Renal impairment is the hallmark toxicity. Onset of renal symptoms was 2-3 days, with oliguria as the predominant finding, although polyuria may occur early or during recovery.

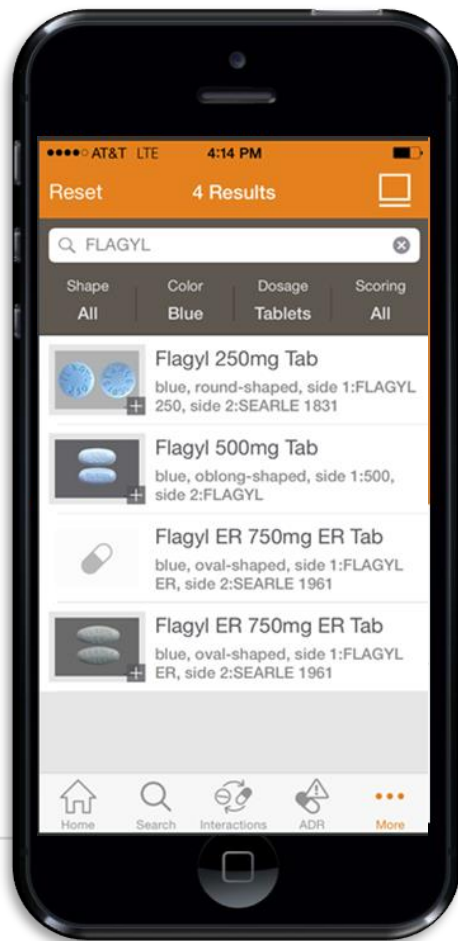
DIAGNOSIS [More Detail](#)

- Patients should be questioned about the preparation and number of mushroom meals, amount, and timing of the meals.
- Evaluate history of problems with urination, either polyuria or oliguria, and gastrointestinal effects.
- Attempt identification of the mushroom, with aid from a mycologist if possible.
- The toxins are not routinely measured in biological fluids. Rhabdomyolysis should be ruled out as a cause of renal failure, as several mushrooms have this mechanism. If liver function tests are abnormal, consider the possibility of hepatic injury.

提供毒物資訊，並且提供處置建議

產品介紹 – 手機APP

- 提供免費手機APP服務，於院方正式購買後，提供帳號開通服務，無人數上限。





Thank you

