

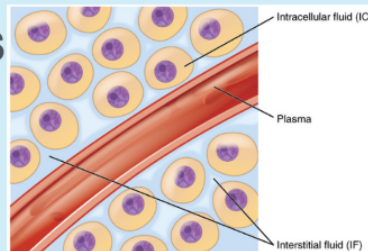
EDARAN MAKLUMAT DRUG 2023









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PLASMA VOLUME EXPANDERS

- solution used to **increase** and **maintain** the volume of fluid in circulating blood that are lost due to illness, trauma or injury.
- 2 main types, colloid and crystalloid.



TYPES	CRYSTALLOID	COLLOID
EXAMPLES	 <p>Normal saline 0.9 %</p>  <p>Dextrose 5 %</p>  <p>Hartmann's Solution</p>	 <p>Human Albumin</p>  <p>Hydroxyethyl straches</p>  <p>Gelatin solution (GelaFuse)</p>
SIZE OF MOLECULES	comparatively small/water solubles molecules	comparatively large/insoluble molecules
INTRA-VASCULAR HALF-LIFE($t_{1/2}$)	30-60 mins	Several hours or days
PERMEABILITY	Freely cross capillary walls. Less fluid remain in intravascular spaces	Cannot escape from vascular system. So, fluid remain in intravascular spaces for longer
RISK OF ALLERGIC	Non allergenic	Risk of anaphylactic reaction
PERIPHERAL EDEMA	Common	Uncommon
PULMONARY EDEMA	Similar potential	Similar potential
VOLUME (to achieve plasma expansion)	3X volume needed for replacement	Replaces fluid volume for volume

References:

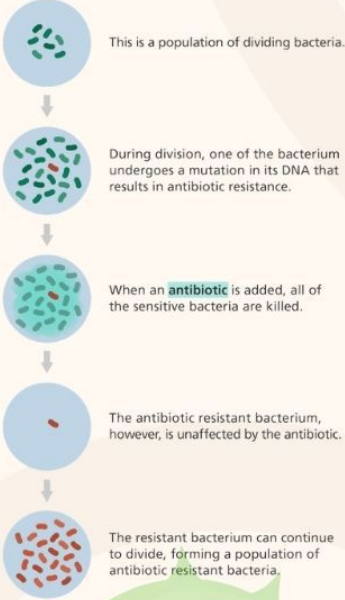
1. Colloid vs Crystalloid Solutions: <https://www.nursingtimes.net/clinical-archive/critical-care/choosing-between-colloids-and-crystalloids-for-iv-infusion-20-11-2017/>
2. Blood and plasma volume expanders, dR
3. Sharon R Lewis, Michael W Pritchard; Colloids versus crystalloids for fluid resuscitation in critically ill people; Cochrane Database Syst Rev. 2018; 2018(8): CD000567.

ANTIBIOTIC RESISTANCE



Antibiotic resistance occurs when bacteria become resistant to the drugs that were used against them, making infections harder and more expensive to treat.

HOW ANTIBIOTIC RESISTANCE HAPPENS



HOW TO STOP IT : HEALTHCARE WORKER

- ✓ Should follow standard guidelines when treating infection
- ✓ Should not use antibiotics unnecessarily
- ✓ Should give the shortest course of antibiotics as recommended
- ✓ Should select the commonest antibiotic to treat infections rather than selecting higher antibiotics

WHAT YOU CAN DO

- Only use antibiotic prescribed for you
- Make sure to finish antibiotic course even if you feel better
- Never use left over antibiotic
- Don't share antibiotic with others
- Prevents infections by regularly washing your hand, avoid close contact with sick people and keeping your vaccination up to date

THE EFFECT OF ANTIBIOTIC RESISTANCE

- May require increased recovery time
- Tend to incur increased medical expenses
- May even die from the infection



DISEDIAKAN OLEH :

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DENGAN KERJASAMA
PERKHIDMATAN MAKLUMAT DRUG

SEDIAAN FARMASEUTIKAL STERIL

Disediakan oleh :
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01

Apa itu Steril?

Steril adalah bebas daripada kuman atau bakteria. Teknik aseptik adalah salah satu kaedah pensterilan produk.

02

Apakah Persediaan Farmaseutikal Steril yang ada di Pusat Perubatan USM Bertam?

1. Sediaan Ubat Sitotoksik/Kemoterapi.
2. Sediaan Radiofarmaseutikal.

Apa itu Amalan Penyediaan Baik/Good Preparation Practice (GPP)?

GPP adalah sebahagian daripada proses jaminan kualiti untuk memastikan secara konsisten kualiti produk steril yang dihasilkan mengikut prosedur yang ditetapkan.

03

Elemen GPP dalam Farmaseutikal Steril?

1. Bahan/material.
2. Fasiliti/bangunan.
3. Peralatan.
4. Dokumentasi.
5. Prosedur Piawai.
6. Personal.

04

Kenapa perlunya GPP dalam Penyediaan Farmaseutikal Steril?

1. Dapat mengelakkan kesilapan perubatan.
2. Produk farmaseutikal tidak tercemar dengan mikroorganisma.

05

Rujukan :

1. <https://basicmedicalkey.com/sterile-pharmaceutical-products/#:~:text=Parenteral%20drug%20delivery%20systems%20and,a%20result%20of%20their%20use.>
2. Manual For Sterile Preparations 2nd Edition 2021, KKM.

MEDICATION WASTAGE BY PATIENTS



PHARMACY UNIT, PPUSMB ; DRUG INFORMATION ISSUE 35 MARCH 2023

INTRODUCTION

Medication wastage is a common issue that affects patients and healthcare systems worldwide. It occurs when patients do not take their medication as prescribed, which can lead to decreased treatment effectiveness, increased healthcare costs, and adverse drug events.



CAUSES OF MEDICATION WASTAGE

- Complex dosing regimens,
- Side effects,
- Cost,
- Limited access to healthcare,
- Lack of understanding

EFFECTS OF MEDICATION WASTAGE

- Decreased treatment effectiveness,
- Increased healthcare costs,
- Adverse drug events,
- Reduced quality of life,
- Environmental impact



It's important to note that the effects of medication wastage can be prevented or minimized by taking steps to improve medication adherence and reduce medication waste.

STRATEGIES TO REDUCE MEDICATION WASTAGE

About RM 15,000.00 worth of medication has been returned to UFPL PPUSM in 2022

Improved patient education & Awareness

- Return excess medication campaign

Simplifying dosing regimens

Addressing cost and access barriers

Implementing proper disposal methods



TIPS YOU CAN SHARE WITH YOUR PATIENTS

Set reminders to take your medication

Keep a medication schedule



Store medication in a cool, dry place,

Talk to your healthcare provider about any concerns or questions

"MEDICATION WASTAGE IS A COMPLEX ISSUE WITH MULTIPLE CAUSES AND EFFECTS. BY UNDERSTANDING THE CAUSES AND EFFECTS OF MEDICATION WASTAGE, WE CAN WORK TOGETHER TO REDUCE MEDICATION WASTAGE AND IMPROVE PATIENT OUTCOMES."

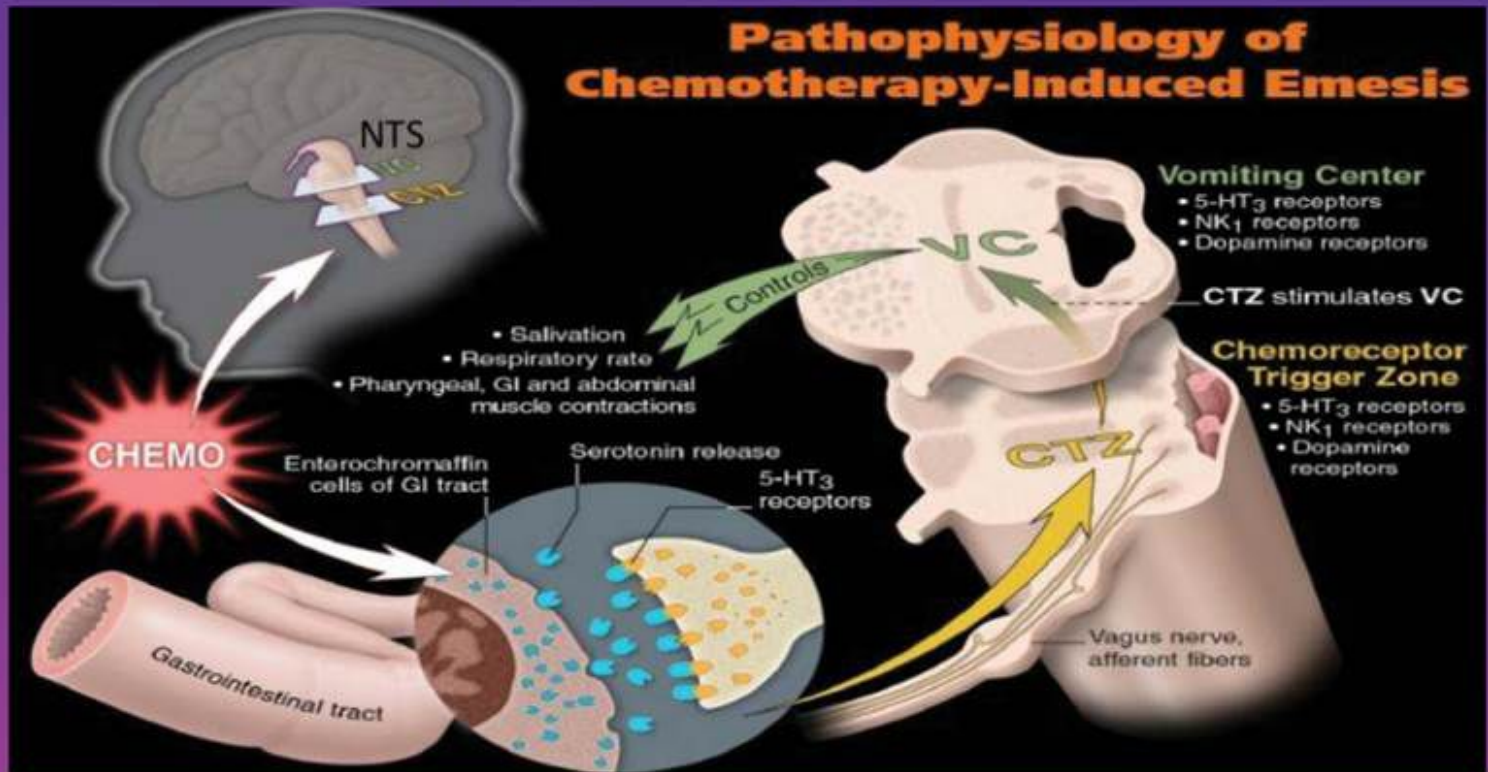
"Kindly reach out to our friendly pharmacy member for any enquiries about your medication"

CHEMOTHERAPY INDUCED NAUSEA & VOMITING

Chemotherapy-induced nausea and vomiting (CINV) is one of the most feared and severe side effects of cancer treatment. Incidence has been reported in as high as 70%–80% of patients. Incidence of nausea tends to be higher than that of actual vomiting, and antiemetic medications tend to be less effective in controlling nausea.¹

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Pathophysiology of Chemotherapy-Induced Emesis



GUIDELINES FOR ANTI-EMETICS PRESCRIPTION WITH CHEMOTHERAPY³

Emetogenic level	With chemotherapy D1	Take home (oral) D2 – 3	Options
High	5-HT3 Antagonist + Dexamethasone ± NK1 Antagonist	Dexamethasone ± NK1 Antagonist	Lorazepam
Moderate	5-HT3 Antagonist + Dexamethasone ± NK1 Antagonist	Dexamethasone ± NK1 Antagonist	
Low	Dexamethasone or Metoclopramide or Prochlorperazine	Dexamethasone or Metoclopramide	
Minimal	Nil	Nil	

ANTI EMETICS AND DOSAGE³

DRUG	DOSE	ROUTE	FREQUENCY
5-HT3 Antagonist			
• Granisetron	1 mg 2 mg	IV PO	daily
• Ondansetron	8 – 24 mg 16 – 24 mg	IV PO	daily (in divided doses)
Dexamethasone	8 - 12 mg 8 mg	IV PO	stat daily
Metoclopramide	10 - 20 mg	IV or PO	tds
Lorazepam	0.5 – 2 mg	PO	nocte
Prochlorperazine	10 mg	PO or IV	bd or tds
Haloperidol	0.5 – 2 mg	PO or IV	tds or qid
Aprepitant (NK1 Antagonist)	125 mg 80 mg	PO PO	Day 1 Day 2 & 3

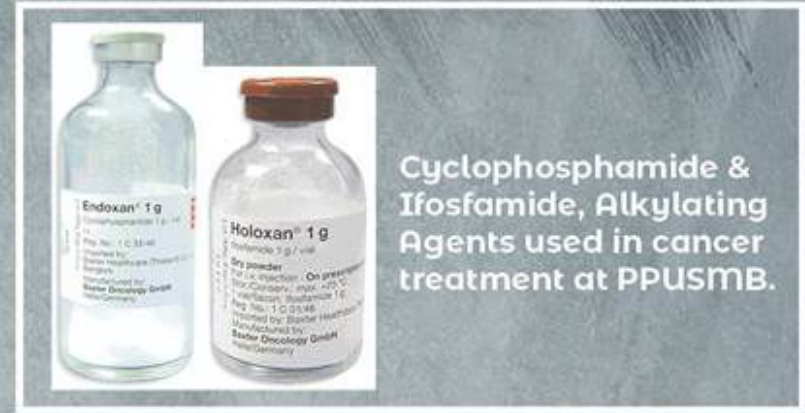
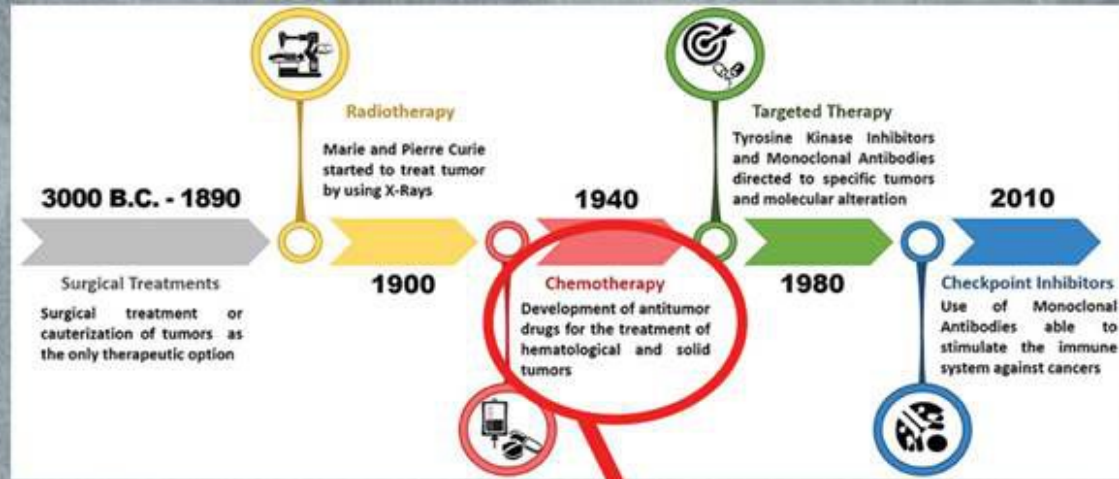
Rujukan :

- https://www.ons.org/pep/chemotherapy-induced-nausea-and-vomiting-adult?display=pepnavigator&sort_by=created&items_per_page=50
- <https://www.pedhemeoncprmk.com/uploads/6691/files/CINV.pdf>
- 3rd Edition Ministry of Health Systemic Therapy Protocol 2017 (page 99-101)

EVOLUTION OF CHEMOTHERAPY

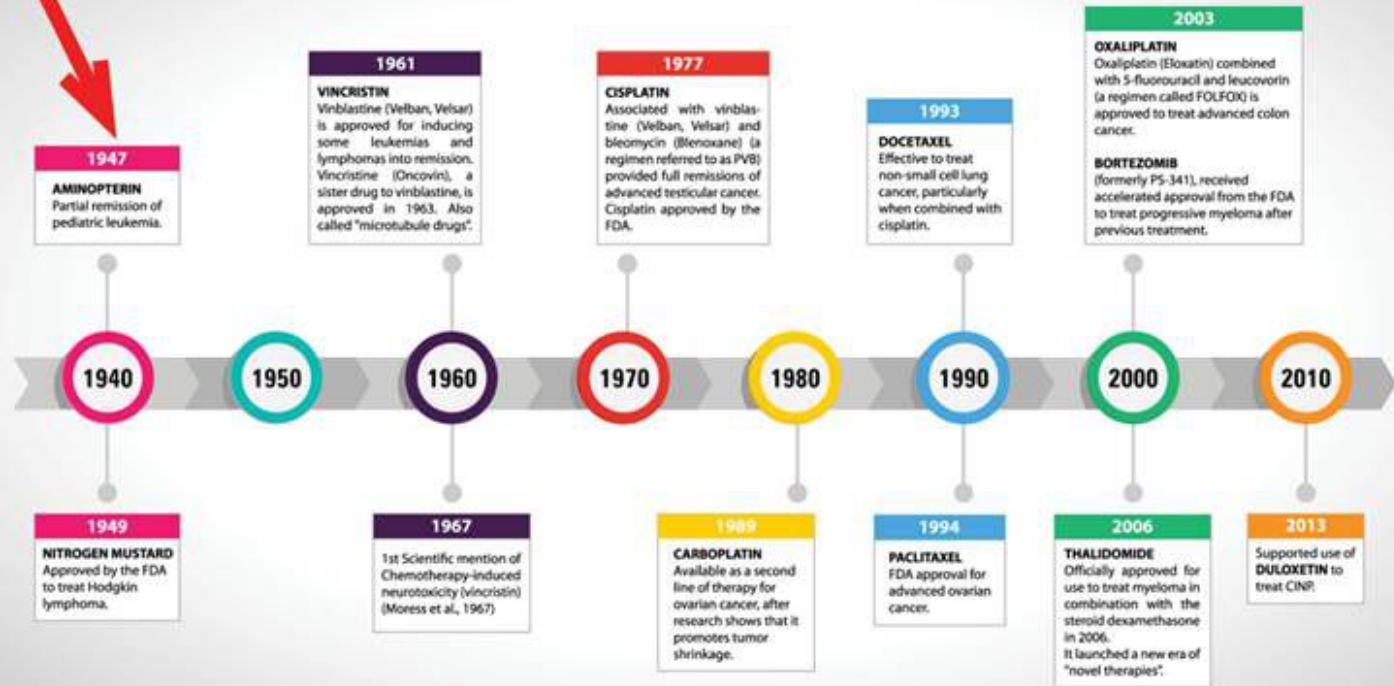
As with many discoveries in science, chance and coincidence have favored innovation in the creation of new medications or treatments. The origins of the first effective chemotherapy for cancer relied both on rigorous research but also on accidental findings during World War I (WWI) when mustard gas was used as a weapon. Until then, most treatments for advanced cancer were ineffective.

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Referral :

- <https://www.frontiersin.org/articles/10.3389/fphar.2018.01300/full>
- https://www3.paho.org/hq/index.php?option=com_content&view=article&id=9583&Itemid=1959&lang=en#gsc.tab=0
- <https://www.history.com/news/world-war-i-gas-chemical-weapons>
- <https://www.drugs.com/drug-class/alkylating-agents.html>



Apa yang anda perlu tahu Cara Simpan Ubat Di Rumah

Siri 1



Baca Arahan

- Baca dengan teliti arahan dan pelabelan.
- Ikut arahan penyimpanan khusus seperti keperluan penyejukan atau mengelakkan pendedahan kepada cahaya.

01



Lokasi Penyimpanan

- Pilih lokasi penyimpanan yang sesuai.
- Simpan pada suhu 8-25 °C (melainkan dinyatakan suhu khusus), kering, dan jauh dari cahaya matahari langsung.
- Elakkan menyimpan ubat di kawasan yang terdedah kepada kelembapan tinggi, seperti bilik mandi.

02



Bekas Kalis Kanak-kanak (Childproof)

- Simpan dalam bekas atau kabinet kalis kanak-kanak.
- Jauhkannya dari capaian dan penglihatan kanak-kanak.
- Jika boleh, kunci kawasan penyimpanan atau gunakan penutup keselamatan untuk perlindungan tambahan.

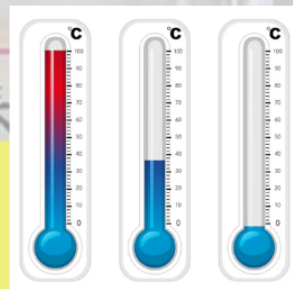
03



Pembungkusan Asal

- Sebolehnya simpan ubat dalam pembungkusan asal.
- Pembungkusan asal selalunya mengandungi maklumat penting seperti tarikh luput, arahan dos, dan sebarang langkah berjaga-jaga tambahan.

04



Pertimbangan Suhu

- Penyejukan biasanya diperlukan untuk ubat seperti insulin atau antibiotik tertentu.
- Tidak semua ubat harus disimpan dalam peti sejuk.
- Semak label atau berunding dengan profesional penjagaan kesihatan.

05

Bersambung

www.amdi.usm.my



TEKNIK PENGGUNAAN UBAT TITIS MATA DAN SALAP MATA

Ubat titis mata merupakan sediaan steril (bebas daripada kuman) yang digunakan untuk merawat masalah pada bahagian mata. Terdapat pelbagai jenis sediaan ubat mata di pasaran dengan pelbagai tujuan



UBAT TITIS MATA



1

- Cuci tangan dengan menggunakan air dan sabun sehingga bersih.
- Lap kawasan mata dengan menggunakan kain yang bersih atau tisu bagi membuang kotoran yang melekat pada kawasan mata.
- Buka penutup botol ubat titis mata.

2

- Dongakkan sedikit kepala ke belakang.
- Tarik bahagian bawah kelopak mata sehingga mempunyai ruang yang mencukupi untuk meletakkan ubat.
- Dekatkan penitis ke bahagian bawah kelopak mata yang ditarik. Pastikan hujung penitis tidak menyentuh mana-mana bahagian mata

3

- Picit botol ubat titis mata dan pastikan ubat masuk kedalam mata.
- Tutup mata selama 2-3 minit. Elakkan daripada memejam mata dengan kuat atau mengerlipkan mata supaya ubat tidak mengalir keluar.
- Sapu lebihan ubat titis mata dengan menggunakan kain bersih atau tisu.



UBAT SALAP MATA



1

- Basuh tangan dan pastikan anda tidak memakai kanta lekap ketika menggunakan ubat titis mata. Duduk atau berdiri di hadapan cermin.
- Dongakkan kepala sedikit ke belakang dan pastikan mata memandang ke siling.
- Dengan membuka mata, tarik kelopak mata bahagian bawah secara lembut untuk membentuk karung di bahagian bawah kelopak mata.

2

- Picitkan sedikit salap mata tersebut (anggaran : 1cm) ke dalam karung yang dibentuk tadi.
- Kerdipkan mata beberapa kali ketika untuk meratakan ubat salap mata.
- Sekiranya anda turut menggunakan ubat titis mata pada masa yang sama, sapukan ubat salap mata ini kemudian.

ARAHAN DAN PERINGATAN

Patuhi arahan penggunaan ubat titis mata/ Ubat salap mata
Pastikan lebihan ubat sediaan komersial dibuang selepas 4 minggu (1 bulan) dibuka. Segera berjumpa doktor jika mengalami alahan selepas menggunakan ubat titis mata/ ubat salap mata.

Jauhkan daripada kanak-kanak. Pastikan ubat ditutup dengan ketat. Simpan ubat mengikut kesesuaian suhu yang tertulis pada label botol ubat titis mata. Elakkan menyimpan di tempat yang panas dan terdedah pada cahaya matahari.

EDARAN MAKLUMAT DRUG

ISSUE 40 : SEPT 2023

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POLYPHARMACY

RISK FACTORS :

- Multiple medical conditions.
- multiple medications.
- Chronic mental health conditions.
- Residing in a long-term care facility.
- Poorly updated medical records.
- Prescribing to meet disease-specific quality metrics.

WHAT CAN BE DONE ?

- **Identify the indications** - All prescribed medications should include the indication or diagnosis for which the drug has been prescribed.
- **Deprescribe, adjust or change medications** that are potentially harmful or that no longer benefit the patient.
- Use **tools** to help evaluate and discontinue medications that are potentially inappropriate, unnecessary or deemed harmful.

POLYPHARMACY SCREENING TOOLS

- **START** (Screening Tool to Alert Doctors to Right Treatment)
- **STOPP** (Screening Tool of Older People's Potential Inappropriate Prescriptions)
- The **Beers Criteria** for Potentially Inappropriate Medication Use in Older Adults
- The **Medication Appropriateness Index (MAI)**
- The **Assess, Review, Minimize, Optimize, and Reassess (ARMOR)**
- **Good Palliative-Geriatric Practice Algorithm**

DEFINITION

Polypharmacy, defined as the routine use of **five or more medications**. This includes over-the-counter, prescription and/or traditional and complementary medicines used by a patient.

(World Health Organization)

CONSEQUENCES :

- Decreased quality of life.
- Increased mobility issue.
- Increased mortality.
- Increased risk of adverse drug events, falls, disability, frailty, medication non-adherence and drug-drug interactions.

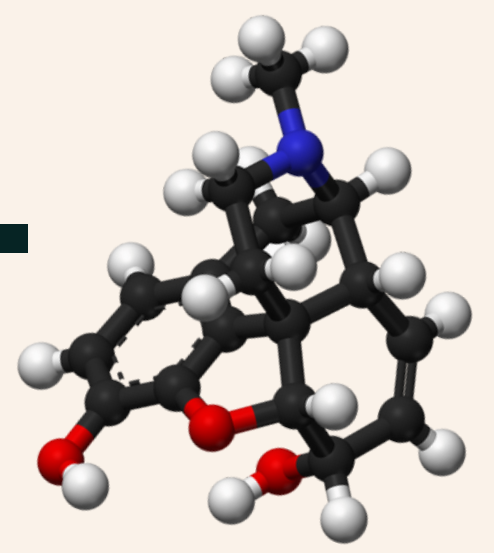


REFERENCES :

1. Medication safety in polypharmacy. Technical Report World Health Organization
2. North Central London Clinical Commissioning Group. Polypharmacy and deprescribing.
3. World report on Ageing and Health. Technical Report World Health Organization.
4. Geriatric pharmacy pocket book. A quick guide for pharmacists managing geriatric cases. First edition, 2021. Pharmaceutical services programme Ministry of Health Malaysia.

Morphine Therapy...

IT'S TIME TO BUST THE MYTHS



MYTH #1


Morphine therapy accelerates cancer progression.



Morphine is used to manage pain and does not speed up cancer growth.

MYTH #2

Patients become instantly addicted to morphine.

Opioid addiction is a  concern but is less likely when used for legitimate medical purposes.


MYTH #3

Increasing morphine dose results in pain loss.



Tolerance can occur, but pain control can be managed with dosage adjustments or alternatives.

MYTH #4

Morphine is only used as a last resort for cancer pain. Morphine is a standard option for cancer pain management at various  treatment stages.

MYTH #5

Morphine therapy always causes severe side effects.



Side effects can occur, but they can often be managed, and the benefits of pain relief usually outweigh them.

Analgesics in Pregnancy

Analgesics to Avoid

Non-steroidal anti-inflammatory drugs (NSAIDs)

Aspirin, Ibuprofen, Naproxen

Safe Analgesics

Acetaminophen

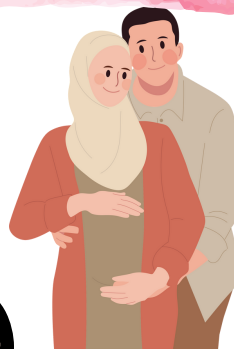
Why NSAID is contraindicated for pregnant women?

- Increased Risk of Complications
- Risk of Bleeding
- Risk of Premature Labour
- Potential for Developmental Issues

Natural Pain Relief



Yoga and gentle exercise



Prenatal massage



Breathing techniques

Tips for Safe Analgesic Use

- Always consult your healthcare provider before taking any medication
- Use the lowest effective dose
- Follow recommended dosages and schedules
- Avoid combination medications if possible

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PUSAT PERUBATAN USM BERTAM

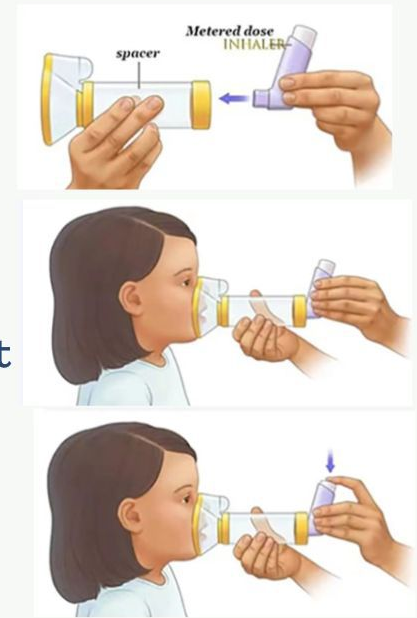


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INHALER & AEROCHAMBER

Cara menggunakan Ubat Sedut/ Metered Dose Inhaler (MDI) dengan Aerochamber

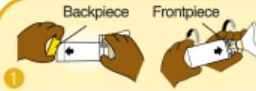





- 1 Buka penutup. Goncang inhaler 5 kali untuk memastikan kandungan adalah sekata. Pasangkan inhaler kepada corong.
- 2 Letakkan bahagian topeng pada muka (menutupi hidung dan mulut) dan pastikan ianya rapat.
- 3 Tekan inhaler sekali. Tarik nafas melalui mulut dan hembus melalui hidung sebanyak 10 kali dengan perlahan.
- 4 Ulang langkah 2-3 selepas 1 minit untuk sedutan kedua jika perlu.



PEMBERSIHAN AEROCHAMBER

CLEANING INSTRUCTIONS

THIS PRODUCT CAN BE USED RIGHT OUT OF THE PACKAGE AND THEN CLEANED WEEKLY.

 <p>1 Remove the Backpiece. To detach the Frontpiece, twist chamber as shown above.</p>	 <p>2 Soak the parts for 15 minutes in a mild solution of liquid dish detergent and lukewarm clean water. Agitate gently. Rinse parts in clean water.</p>	 <p>3 Dishwasher safe under the following conditions: - Avoid heavy or other cycles that include heated dry over 158°F - Parts must be placed on the top rack ONLY - Secure product face up as pictured - Use dishwasher detergent and rinse aid - Do not boil or sterilize SEE CAUTION #1 BELOW.</p>	 <p>4 Shake out excess water from the parts and allow to air dry in a vertical position. Ensure parts are dry before reassembly.</p>	 <p>5 To reassemble, fit the Frontpiece on the end of the chamber and twist firmly until securely locked into position.</p>	 <p>6 Center the Alignment Feature on the backpiece with the Flow-Vu® Inspiratory Flow Indicator, as shown. Press firmly to attach the backpiece.</p>
---	--	--	--	--	--

PENTING!!!

Kumur mulut anda selepas menggunakan inhaler untuk mengelakkan jangkitan pada mulut.

RUJUKAN :

[HTTP://WWW.ASTMAHANDBOOK.ORG.AU/MANAGEMENT/DEVICES/SPACERS](http://www.asthmahandbook.org.au/management/devices/spacers)

[HTTPS://IMED2.GITHUB.IO/HTML/KAUNSELING/MDIAEROCHAMBER.HTML](https://imed2.github.io/html/kaunseling/mdiaerochamber.html) - JABATAN FARMASI HOSPITAL KUALA LIPIS.

MAKLUMAT DRUG

edisi khas

Aidilfitri

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8 TIPS BALIK KAMPUNG

Dengan Membawa Ubat-Ubatan

f DUTA KENALI UBAT ANDA



SEDIAKAN BEKAS KHAS UNTUK BAWA UBAT.

Bawa ubat kegunaan am seperti ubat demam, ubat batuk dan sebagainya.



KIRA KUANTITI UBAT.

Pastikan cukup untuk sepanjang tempoh perjalanan pulang ke kampung.



SENTIASA SIMPAN UBAT DALAM BEKAS ASAL

kerana maklumat pada label ubat tersebut penting untuk rujukan.



BAWA UBAT DALAM KOTAK SEJUK BERSAMA-SAMA PEK AIS
(untuk ubat yang perlu disimpan dalam peti sejuk).



BAWA UBAT DALAM BAGASI TANGAN

jika balik kampung dengan menaiki kapal terbang.



JANGAN TINGGALKAN UBAT DALAM KENDERAAN.

Suhu tinggi boleh merosakkan ubat.



SIMPAN UBAT DI TEMPAT YANG TINGGI.

Jauhkan ubat daripada dicapai oleh kanak-kanak.



TETAPKAN JAM PENGGERA JIKA TAKUT TERLUPA AMBIL UBAT.

Ubat perlu diambil mengikut masa yang ditetapkan walaupun sibuk beraya.

Selamat Hari Raya
Idul Fitri

1 Syawal 1444 H

Minal Aidin Wal Faidzin

Maaf Zahir dan Batin

dengan ingatan tulus ikhlas daripada
**Warga Kerja Unit Farmasi
Pusat Perubatan USM Bertam**