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Kementerian Kesihatan Malaysia
Program Perkhidmatan Farmasi

GARIS PANDUAN PETUGAS HAJI MALAYSIA ROMBONGAN PERUBATAN (PERKHIDMATAN FARMASI)

EDISI PERTAMA

2025

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بِسْمِ اللَّهِ الرَّحْمٰنِ الرَّحِيْمِ

Segala puji bagi Allah SWT atas limpah rahmat dan hidayah-Nya, serta selawat dan salam ke atas junjungan besar Nabi Muhammad SAW.

Setiap tahun, Kementerian Kesihatan Malaysia (KKM) memainkan peranan penting dalam memastikan jemaah haji Malaysia menerima perkhidmatan kesihatan yang berkualiti sepanjang menunaikan ibadah di Tanah Suci. Perkhidmatan farmasi merupakan salah satu komponen penting dalam memastikan bekalan ubat-ubatan, khidmat nasihat ubat-ubatan, dan penjagaan farmaseutikal diberikan secara optimum kepada jemaah.

Justeru, **Garis Panduan Petugas Haji Malaysia Rombongan Perubatan (Perkhidmatan Farmasi)** ini diterbitkan sebagai rujukan komprehensif bagi petugas farmasi yang terlibat dalam rombongan perubatan haji. Garis panduan ini bukan sahaja membantu petugas memahami skop tugas dan tanggungjawab mereka, malah diharap dapat meningkatkan kecekapan serta profesionalisme dalam penyampaian perkhidmatan farmaseutikal di Tanah Suci.

Saya merakamkan penghargaan kepada semua pihak yang telah menyumbangkan tenaga, masa, dan kepakaran dalam penghasilan garis panduan ini. Semoga ia menjadi panduan yang bermanfaat dan membantu petugas farmasi dalam menjalankan amanah dengan penuh dedikasi serta berintegriti.

Sekian, terima kasih.

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Segala puji dan syukur ke hadrat Allah SWT atas limpah rahmat dan hidayah, dengan izin-Nya, **Garis Panduan Petugas Haji Malaysia Rombongan Perubatan (Perkhidmatan Farmasi)** ini dapat disempurnakan seperti yang dirancang.

Garis panduan ini diterbitkan buat julung kalinya oleh Program Perkhidmatan Farmasi, hasil daripada cadangan yang diilhamkan oleh mantan Pengarah Bahagian Amalan dan Perkembangan Farmasi yang sebelumnya, YBrs. Puan Fuziah binti Abdul Rashid.

Garis panduan ini disusun sebagai rujukan utama bagi petugas farmasi, merangkumi skop tugas, tanggungjawab, serta maklumat berkaitan kes-kes farmaseutikal yang lazim dikendalikan di Tanah Suci. Diharapkan, dokumen ini dapat membantu petugas farmasi dalam memberikan perkhidmatan farmaseutikal yang terbaik serta meningkatkan keyakinan mereka dalam melaksanakan tugas yang diamanahkan.

Saya ingin merakamkan setinggi-tinggi penghargaan kepada semua pihak yang telah terlibat dalam penerbitan garis panduan ini, sama ada secara langsung atau tidak langsung. Sumbangan idea, ilmu, dan komitmen yang diberikan amat dihargai dan menjadi tonggak utama dalam penerbitan ini.

Saya berharap garis panduan ini dapat dimanfaatkan sepenuhnya oleh petugas farmasi yang terlibat dalam rombongan perubatan haji, agar mereka dapat menjalankan amanah sebaiknya dan memberi manfaat kepada semua.

Sekian. Wassalamualaikum warahmatullahi wabaraktuh.

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ISI KANDUNGAN

1. PENGENALAN

Kementerian Kesihatan Malaysia (KKM) sentiasa komited untuk memberikan perkhidmatan kesihatan yang berkualiti tinggi kepada rakyat Malaysia. Ini selaras dengan visi KKM "Negara menggembleng tenaga ke arah kesihatan yang lebih baik" dan misinya untuk memastikan sistem kesihatan yang cekap, berintegriti serta mesra pelanggan.

Komitmen ini turut diperluaskan kepada rakyat Malaysia yang berada di luar negara, khususnya jemaah haji yang menunaikan ibadah di Tanah Suci. Setiap tahun KKM bekerjasama erat dengan Lembaga Tabung Haji (LTH) dalam penyediaan perkhidmatan kesihatan di Tanah Suci melalui penempatan rombongan perubatan pada setiap musim operasi haji.

Program Perkhidmatan Farmasi KKM juga memainkan peranan penting dalam menyokong operasi ini melalui penglibatan pegawai farmasi (PF) dan penolong pegawai farmasi (PPF) yang terlatih dan berpengalaman sebagai sebahagian daripada rombongan perubatan. Bagi tujuan dokumen ini, PF dan PPF akan dirujuk sebagai petugas farmasi, kecuali dalam keadaan yang memerlukan penjelasan khusus berdasarkan peranan PF atau PPF.

1.1. OBJEKTIF

Seiring dengan peningkatan jumlah jemaah haji dan keperluan perkhidmatan kesihatan di Tanah Suci, garis panduan edisi pertama ini diterbitkan bagi memberi panduan kepada semua petugas farmasi yang terlibat dalam operasi haji. Ia bertujuan untuk menyeragamkan pelaksanaan perkhidmatan farmasi serta memastikan penjagaan farmaseutikal diberikan secara sistematik, cekap dan selamat.

Garis panduan ini juga menekankan aspek-aspek penting seperti logistik, dokumentasi, penjagaan farmaseutikal termasuk kepatuhan kepada ubat-ubatan. Perkhidmatan yang ditawarkan ini juga dipastikan mematuhi peraturan tempatan dan antarabangsa dari pihak berkuasa kesihatan Arab Saudi.

1.2. MISI ROMBONGAN PERUBATAN

Misi rombongan perubatan (RP) adalah menyediakan perkhidmatan kesihatan yang efisien, cekap dan berkesan kepada Jemaah haji bagi membolehkan mereka melaksanakan ibadah haji dengan sempurna. Ini bertepatan dengan misi menyediakan perkhidmatan cemerlang dalam memudah dan menyempurnakan urusan jemaah haji ke arah haji mabrur.

1.3. PETUGAS FARMASI

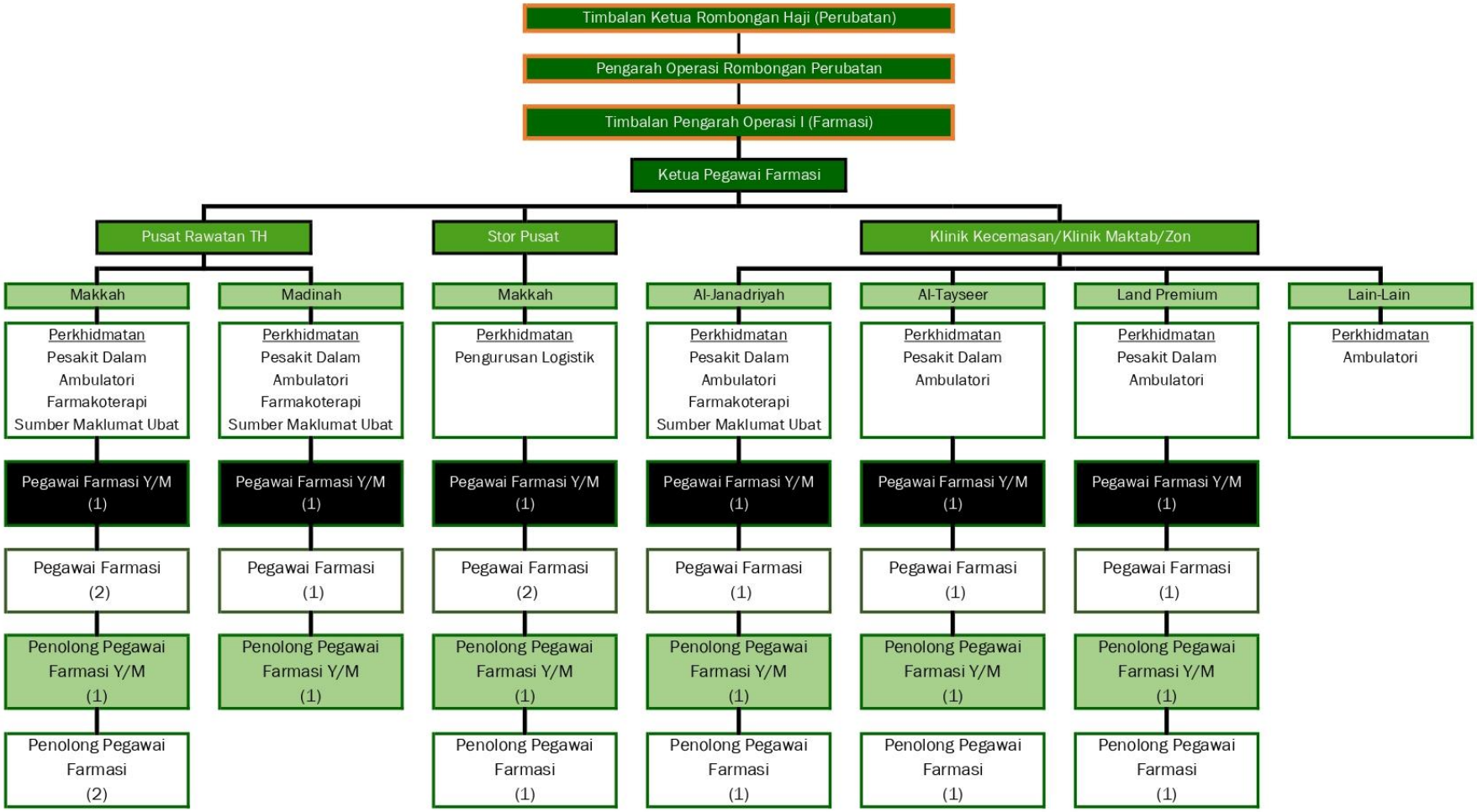
Petugas farmasi yang menyertai rombongan perubatan dipilih daripada kalangan PF dan PPF di fasiliti kesihatan KKM yang mahir serta berpengalaman dalam bidang pengurusan logistik, pesakit dalam, ambulatori dan farmakoterapi. Petugas farmasi akan dikawal selia oleh Penolong Pengurus Farmasi, iaitu pegawai pinjaman daripada KKM yang ditempatkan di Cawangan Kesihatan Lembaga Tabung Haji.

2.PENGURUSAN SUMBER MANUSIA

2.1. KEPERLUAN SUMBER MANUSIA

a. Bilangan sumber manusia yang optimum amat penting sepanjang operasi bagi memastikan kelancaran aktiviti bekalan perubatan serta penjagaan farmaseutikal pesakit.
b. Keperluan petugas farmasi merangkumi jawatan Pegawai Farmasi dan Penolong Pegawai Farmasi yang terdiri daripada rombongan perubatan manakala Pembantu Petugas Haji (PATUH) diambil dari petugas tempatan.
c. Jumlah petugas farmasi bagi setiap musim operasi haji bergantung kepada keperluan penempatan di pusat rawatan/stor pusat/klinik kecemasan/maktab/zon dan perkhidmatan farmasi yang ditawarkan.
d. Bagi operasi haji musim 1446H bersamaan 2025M, seramai 15 PF dan 12 PPF telah terpilih sebagai rombongan perubatan (perkhidmatan farmasi).
e. Sekiranya terdapat pembukaan fasiliti baru, dicadangkan agar penempatan sekurang-kurangnya satu (1) PF dan satu (1) PPF bagi memastikan kelancaran perkhidmatan farmasi.

2.2. CARTA ORGANISASI ROMBONGAN PERUBATAN (PERKHIDMATAN FARMASI)



Gambar rajah 1: Carta Organisasi Rombongan Perubatan (Perkhidmatan Farmasi) mengikut lokasi fasiliti dan perkhidmatan farmasi yang ditawarkan berdasarkan kekuatan rombongan perubatan bagi operasi haji **1446H/2025M.**

2.3. WAKTU OPERASI PERKHIDMATAN KESIHATAN

Perkhidmatan kesihatan di Tanah Suci beroperasi setiap hari mengikut waktu operasi yang ditetapkan kecuali kes-kes kecemasan.

Waktu	Masa
Pagi	7.00 pagi – 12.00 tengah hari
Petang	4.30 petang – 6.00 petang
Malam	7.30 malam – 10.00 malam
Bagi kes kecemasan adalah 24 jam	

Jadual 1: Jadual Waktu Operasi Haji di Tanah Suci

2.4. FASILITI KESIHATAN

Pada operasi haji 1446H/2025M, terdapat dua (2) buah PRTH disediakan iaitu PRTH Makkah dan PRTH Madinah. Selain itu, terdapat juga klinik-klinik kecemasan dan klinik-klinik maktab dan zon. PRTH Madinah serta klinik kecemasan ada menyediakan perkhidmatan pesakit dalam manakala fasiliti lain menawarkan perkhidmatan pesakit luar.

2.5. DESKRIPSI TUGAS

2.5.1. Pegawai Farmasi

I. Ketua Pegawai Farmasi

A. Tanggungjawab

Bertanggungjawab memastikan penyelarasan, pemantauan, dan pelaksanaan perkhidmatan farmasi berjalan secara efektif dan sistematik. Ini termasuk mengawasi pengurusan bekalan perubatan, memastikan kepatuhan kepada garis panduan serta prosedur, dan menyelaraskan tugas anggota farmasi bagi menjamin perkhidmatan penjagaan farmaseutikal yang berkualiti kepada jemaah haji. Selain itu, Ketua Pegawai Farmasi juga memainkan peranan penting dalam memastikan pematuhan terhadap kawalan kualiti, pelaporan perkhidmatan, dan pengurusan aset unit farmasi sepanjang operasi.

B. Senarai Tugas

Pengurusan Sumber Manusia

a. Menyelia dan memastikan semua anggota farmasi berdisiplin serta memberikan perkhidmatan yang berkualiti melalui pemantauan pengurusan dan penyusunan jadual tugas.

Pengurusan Bekalan dan Stok

a. Memastikan bekalan ubat dan bukan ubat mencukupi serta memaklumkan kepada pihak atasan sekiranya terdapat keperluan pembelian tambahan.
b. Bertanggungjawab ke atas semua aset serta melaporkan sebarang kerosakan kepada Unit Aset dan Pentadbiran Rombongan Perubatan.

Pengurusan Kualiti

a. Memantau, menganalisa, dan memastikan tindakan penambahbaikan berterusan terhadap maklumat statistik yang dikumpulkan.
b. Memastikan kepatuhan terhadap semua audit yang berkaitan dengan perkhidmatan farmasi.
c. Menyediakan laporan berkaitan perkhidmatan farmasi di Tanah Suci termasuk laporan sebelum dan selepas wukuf, berdasarkan arahan yang ditetapkan.

Lain-lain

a. Bertindak sebagai Pengerusi Jawatankuasa Kecil Farmasi serta Ahli Jawatankuasa Induk Operasi Masyair (Perubatan).
b. Menyediakan nota serah tugas pada akhir operasi sebagai rujukan kepada pengganti.
c. Melaksanakan tugas-tugas lain yang diarahkan dari semasa ke semasa mengikut keperluan operasi dan arahan pihak atasan.

II. Pegawai Farmasi Yang Menjaga (Y/M)

A. Tanggungjawab

Pegawai Farmasi Yang Menjaga (Y/M) bertanggungjawab menyelaras dan melaksanakan perkhidmatan farmasi di fasiliti yang diketuainya. Peranan ini merangkumi pengurusan operasi farmasi, penyediaan ubat-ubatan, serta memastikan penyampaian penjagaan farmaseutikal yang berkualiti mengikut garis panduan yang ditetapkan.

B. Senarai Tugas

Pengurusan Sumber Manusia

a. Menyediakan jadual tugas atas panggilan.
b. Menyelia dan menyelaras tugas anggota farmasi serta memastikan disiplin dan kualiti kerja dipatuhi.

Pengurusan Bekalan dan Stok

a. Memantau penyediaan pesanan stok ubat dan bukan ubat kepada Stor Pusat Makkah.
b. Memastikan stok sentiasa mencukupi dan disimpan mengikut Tatacara Pengurusan Stor yang betul.
c. Memantau stok dan meluluskan pesanan stok bagi semua unit pemesan berdasarkan keperluan yang sewajarnya.
d. Memastikan bekalan ubat dan bukan ubat mencukupi, dan memaklumkan kepada pihak atasan sekiranya memerlukan pembelian tambahan.
e. Membuat persiapan awal semua ubat-ubatan dan keperluan lain dengan kuantiti yang mencukupi untuk ditempatkan di Masyair.
f. Bertanggungjawab ke atas aset-aset unit serta melaporkan sebarang kerosakan.

Pengurusan Kualiti

a. Memastikan kepatuhan terhadap semua audit yang berkaitan dengan perkhidmatan farmasi.
b. Memantau, menganalisa, dan memastikan tindakan penambahbaikan berterusan terhadap maklumat statistik yang dikumpulkan.
c. Menyediakan laporan berkaitan perkhidmatan farmasi di Tanah Suci termasuk laporan sebelum dan selepas wukuf, berdasarkan arahan yang ditetapkan.
d. Menghadiri mesyuarat mengikut ketetapan pihak pengurusan.

Lain-lain

a. Melaksanakan tugas-tugas lain yang diarahkan dari semasa ke semasa.

III. Pegawai Farmasi Logistik

A. Tanggungjawab

Memantau, menyelaras dan melaksanakan aktiviti Farmasi Logistik bagi memastikan

penjagaan farmaseutikal yang optimum serta pembekalan ubat dan bukan ubat yang mencukupi sepanjang operasi.

B. Senarai Tugas

Pengurusan Bekalan dan Stok

a. Memastikan stok ubat dan bukan ubat disimpan mengikut Tatacara Pengurusan Stor yang betul.
b. Memastikan bekalan ubat dan bukan ubat mencukupi bagi pembukaan operasi dan operasi masyair serta mencadangkan alternatif jika perlu.
c. Memantau stok dan meluluskan pesanan stok bagi semua unit pemesan berdasarkan keperluan yang sewajarnya.
d. Membuat pembelian tambahan ubat dan bukan ubat di Tanah Suci mengikut keperluan setelah mendapat kelulusan daripada pengurusan tertinggi.
e. Menyelaraskan isu berkaitan bekalan perubatan dan memantau stok di klinik maktab.
f. Membuat anggaran dan keperluan ubat dan bukan ubat bagi Mesyuarat Bekalan Perubatan.
g. Merancang keperluan item pra-bungkus berdasarkan stok ubat-ubatan di Stor Pusat.
h. Menguruskan proses pelupusan stok yang luput dan rosak mengikut peraturan semasa yang berkuatkuasa.

Lain-lain

a. Bertugas atas panggilan mengikut jadual yang telah ditetapkan.
b. Membantu tugas-tugas Pegawai Farmasi lain di PRTH Makkah.
c. Melaksanakan tugas-tugas lain yang diarahkan dari semasa ke semasa termasuk melaksanakan perkhidmatan kaunseling kepada pesakit di Maktab.

IV. Pegawai Farmasi Pesakit Dalam

A. Tanggungjawab

Menyelaras dan melaksanakan aktiviti Farmasi Pesakit Dalam bagi memastikan penjagaan farmaseutikal yang optimum, termasuk pembekalan ubat yang berkualiti dan selamat. Selain itu juga, bertanggungjawab dalam meningkatkan kepatuhan pesakit terhadap ubat-ubatan melalui kaunseling serta memastikan pesakit memahami penyakit dan rawatan yang diterima.

B. Senarai Tugas

Perkhidmatan Farmasi Farmakoterapi

a. Menyaring semua preskripsi yang diterima dan melakukan intervensi farmaseutikal sekiranya perlu.
b. Memastikan ubat yang dibekalkan kepada pesakit adalah tepat dari segi identiti pesakit, dos, waktu pengambilan, cara pengambilan dan jenis ubat yang betul.
c. Menyampaikan maklumat berkaitan ubat kepada anggota profesional perubatan, pesakit, dan penjaga.
d. Memantau penggunaan ubat pesakit termasuk *adverse drug reaction* (ADR) dan alahan ubat.
e. Memberikan perkhidmatan kaunseling ubat-ubatan kepada pesakit bagi meningkatkan pemahaman dan kepatuhan terhadap rawatan.

Pengurusan Bekalan dan Stok

a. Membuat pesanan stok ubat dan bukan ubat kepada Stor Pusat Makkah.
b. Memastikan stok sentiasa mencukupi dan disimpan mengikut Tatacara Pengurusan Stor yang betul.
c. Menyemak stok dan meluluskan pesanan stok bagi semua unit pemesan berdasarkan keperluan yang sewajarnya.
d. Memastikan bekalan ubat dan bukan ubat mencukupi, dan memaklumkan kepada pihak atasan sekiranya memerlukan pembelian tambahan.
e. Membuat persiapan awal semua ubat-ubatan dan keperluan lain dengan kuantiti yang mencukupi untuk ditempatkan di Masyair.

Pengurusan Kualiti

a. Mengumpulkan maklumat statistik dan melaksanakan tindakan penambahbaikan berterusan.
b. Merekod dan mendokumenkan semua laporan aktiviti farmaseutikal yang dijalankan.

Lain-lain

a. Bertugas atas panggilan mengikut jadual yang telah ditetapkan.
b. Melaksanakan tugas-tugas lain yang diarahkan dari semasa ke semasa.

V. Pegawai Farmasi Ambulatori

A. Tanggungjawab

Menyelaras dan melaksanakan aktiviti Farmasi Ambulatori bagi memastikan penjagaan farmaseutikal yang optimum, termasuk pembekalan ubat yang berkualiti dan selamat. Selain itu juga, bertanggungjawab dalam meningkatkan kepatuhan pesakit terhadap ubat-ubatan melalui kaunseling serta memastikan pesakit memahami penyakit dan rawatan yang diterima.

B. Senarai Tugas

Perkhidmatan Farmasi Farmakoterapi

a. Menyaring semua preskripsi yang diterima dan melakukan intervensi farmaseutikal sekiranya perlu.
b. Melaksanakan pendispensan ubat dan perkhidmatan kaunseling kepada pesakit yang memerlukan.
c. Memastikan ubat yang dibekalkan kepada pesakit adalah tepat dari segi identiti pesakit, dos, waktu pengambilan, cara pengambilan dan jenis ubat yang betul.
d. Menyampaikan maklumat berkaitan ubat kepada anggota profesional perubatan, pesakit, dan penjaga.
e. Memantau penggunaan ubat pesakit termasuk ADR dan alahan ubat.

Pengurusan Bekalan dan Stok

a. Membuat persiapan awal semua ubat-ubatan dan keperluan lain dengan kuantiti yang mencukupi untuk ditempatkan di Masyair.
b. Membuat pembekalan ubat *floor stock*, troli kecemasan dan bukan ubat untuk kegunaan klinik kecemasan dan klinik maktab.

Pengurusan Kualiti

a. Mengumpulkan maklumat statistik dan melaksanakan tindakan penambahbaikan berterusan.
b. Merekod dan mendokumenkan semua laporan aktiviti farmaseutikal yang dijalankan.

Lain-lain

a. Bertugas atas panggilan mengikut jadual yang telah ditetapkan.
b. Melaksanakan tugas-tugas lain yang diarahkan dari semasa ke semasa.

VI. Pegawai Farmasi Farmakoterapi dan Sumber Maklumat Ubat

A. Tanggungjawab

Menyelaras dan melaksanakan aktiviti Farmakoterapi (Klinikal) bagi memastikan penjagaan farmaseutikal yang optimum, termasuk pembekalan ubat yang berkualiti dan selamat. Selain itu juga, bertanggungjawab dalam meningkatkan kepatuhan pesakit terhadap ubat-ubatan melalui kaunseling serta memastikan pesakit memahami penyakit dan rawatan yang diterima.

B. Senarai Tugas

Perkhidmatan Farmasi Farmakoterapi

a. Menyertai rondaan wad bersama pakar dan anggota kesihatan lain serta memberikan pandangan klinikal berkaitan farmakoterapi.
b. Mengesyorkan dan memantau intervensi farmaseutikal serta menyelaras *pharmaceutical care plan* (PCI) bagi mengoptimumkan farmakoterapi.
c. Menjalankan aktiviti *medication reconciliation* (jika bersesuaian).
d. Memastikan ubat yang dibekalkan kepada pesakit adalah tepat dari segi identiti pesakit, dos, waktu pengambilan, cara pengambilan dan jenis ubat yang betul.
e. Menyampaikan maklumat berkaitan ubat-ubatan kepada anggota profesional perubatan, pesakit, dan penjaga.
f. Memberikan perkhidmatan kaunseling kepada pesakit atau penjaga bagi meningkatkan pemahaman dan kepatuhan terhadap rawatan.

Pengurusan Kualiti

a. Merekod dan mendokumenkan semua laporan aktiviti yang dijalankan.

Lain-lain

a. Bertugas atas panggilan mengikut jadual yang telah ditetapkan.
b. Melaksanakan tugas lain yang diarahkan dari semasa ke semasa.

2.5.2. Penolong Pegawai Farmasi

I. Penolong Pegawai Farmasi Yang Menjaga (Y/M)

A. Tanggungjawab

Memastikan semua aktiviti di Unit Farmasi berjalan lancar dengan memastikan bekalan ubat dan bukan ubat kepada unit pengguna dan pesakit adalah selamat, berkualiti, serta mencukupi.

B. Senarai Tugas

Pengurusan Sumber Manusia

a. Menyelia dan bertanggungjawab ke atas Penolong Pegawai Farmasi dan Pembantu Petugas Haji (PATUH).

Pengurusan Bekalan dan Stok

a. Membantu memastikan stok ubat dan bukan ubat disimpan mengikut Tatacara Pengurusan Stor stor yang betul.
b. Menyemak stok dan meluluskan pesanan stok bagi semua unit pemesan berdasarkan keperluan yang sewajarnya.
c. Membekal dan merekod pengeluaran ubat mengikut Tatacara Pengurusan Stor.
d. Membuat pesanan ubat dan bukan ubat daripada Stor Pusat Makkah.
e. Melaporkan kepada Pegawai Farmasi Y/M jika terdapat ubat dan bukan ubat yang kurang daripada paras minimum supaya tindakan segera boleh diambil.
f. Membantu tugas pra-bungkus ubat-ubatan mengikut keperluan semasa.
g. Membantu proses pelupusan stok yang luput dan rosak mengikut peraturan semasa.
h. Merekod suhu penyimpanan ubat dan bukan ubat mengikut jadual yang ditetapkan serta melaporkan kepada Pegawai Farmasi Y/M jika terdapat penyimpangan suhu.

Pengurusan Kualiti

a. Merekod dan mendokumenkan semua statistik yang berkaitan.

Lain-lain

a. Bertugas atas panggilan mengikut jadual yang telah ditetapkan.
b. Membantu tugas-tugas Penolong Pegawai Farmasi lain.
c. Melaksanakan tugas-tugas lain yang diarahkan dari semasa ke semasa.

II. Penolong Pegawai Farmasi

A. Tanggungjawab

Memastikan semua aktiviti di Unit Farmasi berjalan lancar dengan memastikan bekalan ubat dan bukan ubat kepada unit pengguna dan pesakit adalah selamat, berkualiti, serta mencukupi.

B. Senarai Tugas

Pengurusan Sumber Manusia

a. Bertindak sebagai *runner* bagi membantu tugas-tugas anggota farmasi di PRTH/klinik kecemasan/klinik maktab/klinik zon jika mobilisasi sumber manusia diperlukan.

Perkhidmatan Farmasi Farmakoterapi

a. Menyaring semua preskripsi yang diterima dan melakukan intervensi farmaseutikal sekiranya perlu.
b. Menjalankan pendispensan ubat-ubatan dengan betul.
c. Membantu pegawai farmasi dalam tugas-tugas kaunseling ubat-ubatan dan pendidikan pesakit sekiranya perlu.

Pengurusan Bekalan dan Stok

a. Memastikan stok ubat di kaunter sentiasa disemak dan mencukupi.
b. Membantu membekal dan merekod pengeluaran ubat mengikut Tatacara Pengurusan Stor.
c. Menjalankan aktiviti pra-bungkus ubat-ubatan mengikut keperluan semasa.
d. Penolong Pegawai Farmasi di Stor Pusat akan menjalankan aktiviti pra-bungkus dengan bantuan anggota PATUH.

Lain-lain

a. Bertugas atas panggilan mengikut jadual yang telah ditetapkan.
b. Melaksanakan tugas-tugas lain yang diarahkan dari semasa ke semasa.

3.PENGURUSAN PEROLEHAN BEKALAN PERUBATAN

3.1. PEROLEHAN DI TANAH AIR

3.1.1. Mesyuarat Klarifikasi Tender

a. Mesyuarat ini dilaksanakan bagi memilih pembekal perubatan untuk setiap musim operasi haji.
b. Keanggotaan mesyuarat terdiri daripada Unit Perolehan LTH, Cawangan Kesihatan LTH dan anggota kesihatan dari pelbagai disiplin yang berkaitan.
c. Perlu mematuhi tatacara atau manual perolehan LTH semasa melaksanakan tanggungjawab dan menjaga kerahsiaan mesyuarat.

3.1.2. Sesi Penerimaan, Pengujian dan Pentauliahan Bekalan Perubatan

a. Bekalan perubatan perolehan tanah air perlu disemak dan disahkan sebelum dihantar melalui kargo udara ke Tanah Suci.
b. Sesi ini melibatkan anggota LTH dan bakal petugas RP operasi haji musim semasa dari pelbagai disiplin yang berkaitan.
c. Proses ini boleh berlangsung dalam beberapa sesi bergantung kepada keperluan operasi.

3.2. PEROLEHAN DI TANAH SUCI

3.2.1. Kriteria/Jenis Item

a. Item berbentuk cecair atau diklasifikasikan sebagai *dangerous goods*
b. Nilai perolehan yang lebih ekonomi
c. Filem X-ray
d. Keperluan perolehan tambahan
e. Permohonan ubat luar formulari
f. dan lain-lain yang berkaitan

3.3. MESYUARAT BEKALAN PERUBATAN (MBP)

Mesyuarat Bekalan Perubatan (MBP) adalah mesyuarat yang bertanggungjawab untuk membincangkan dan membuat keputusan berkaitan perolehan bekalan perubatan bagi operasi haji musim seterusnya.

Matlamat MBP adalah untuk memastikan pesakit yang mendapatkan rawatan di fasiliti

kesihatan Tabung Haji mendapat ubat-ubatan yang selamat, berkesan dan berkualiti serta memastikan bekalan ubat dan bukan ubat adalah optimum sepanjang operasi haji.

3.3.1. Objektif

a. Memantau dan membuat anggaran keperluan bekalan ubat dan bukan ubat sepanjang operasi haji.
b. Mengemaskini senarai formulari ubat rombongan perubatan haji serta memantau penggunaan ubat-ubatan semasa operasi.
c. Memastikan penggunaan ubat-ubatan secara rasional dan berkualiti serta amalan keselamatan penggunaan ubat-ubatan dilaksanakan.
d. Memantau peruntukan dan prestasi perbelanjaan ubat, peralatan dan bekalan perubatan sepanjang operasi haji.
e. Memantau dan membincangkan isu berkaitan kualiti, efikasi dan keselamatan ubat.
f. Memantau dan melaporkan pola penggunaan ubat dari semasa ke semasa serta mengambil tindakan susulan untuk mengelakkan pembaziran.

3.3.2. Keanggotaan

Keanggotaan mesyuarat adalah seperti berikut:

a. Timbalan Ketua Rombongan Haji (Rombongan Perubatan) - Pengerusi
b. Pengarah Operasi Rombongan Perubatan - Ahli
c. Timbalan Pengarah Operasi I (Farmasi) - Ahli
d. Pengarah Operasi Pusat Rawatan - Ahli
e. Pengarah Operasi Klinik Kecemasan - Ahli
f. Pengarah Operasi Maktab - Ahli
g. Ketua Pegawai Farmasi - Ahli
h. Ketua Pakar - Ahli
i. Pakar Perubatan berkaitan - Ahli
j. Pakar Perubatan Keluarga - Ahli
k. Semua Ketua Unit - Ahli
l. Penyelia - Ahli
m. Anggota yang berkaitan (lantikan semasa di Tanah Suci) - Ahli
n. Pegawai Farmasi - Sekretariat

3.3.3. Mesyuarat

a. Mesyuarat perlu dilaksanakan sebelum tamat operasi haji di tanah suci.
b. Jawatankuasa ini boleh menjemput pegawai-pegawai dari bidang-bidang tertentu untuk turut menghadiri mesyuarat bagi tujuan input teknikal.
c. Minit mesyuarat perlu disediakan dan disahkan dalam tempoh satu (1) minggu dari tarikh mesyuarat.
d. Senarai cadangan perolehan semua kategori bekalan perubatan yang telah dimuktamadkan hendaklah diserahkan kepada setiausaha mesyuarat dalam tempoh lima (5) hari dari tarikh mesyuarat.

3.3.4. Agenda Mesyuarat

a. Pembentangan data dan analisa penggunaan ubat dan peralatan bagi operasi haji musim semasa.
b. Perbincangan cadangan perolehan operasi haji musim yang seterusnya berdasarkan analisa penggunaan musim semasa.
c. Pembentangan cadangan permohonan ubat, aset dan bekalan perubatan yang baharu untuk perolehan pada musim seterusnya.
d. Perbincangan isu dan perkara berbangkit semasa operasi.
e. Hal-hal lain.

4.FASA OPERASI HAJI

Operasi haji terbahagi kepada empat (4) fasa seperti berikut:

a. Fasa Pembukaan
b. Fasa Operasi
c. Fasa Operasi Masyair
d. Fasa Penutupan

Pada setiap fasa operasi, perkhidmatan farmasi perlu dilaksanakan berpandukan dokumen Sistem Pengurusan Kualiti ISO 9001:2015 Perkhidmatan Haji yang telah ditetapkan oleh pihak TH. Dokumen sistem pengurusan kualiti merangkumi, Arahan Kerja (AK), Garis Panduan (GP), Lampiran (LAM) dan Borang (BRG).

4.1. FASA PEMBUKAAN

4.1.1. Senarai Semak Pembukaan Operasi

Dokumen rujukan bagi proses pembukaan operasi adalah seperti berikut:

a. AK - Pembukaan Pusat Rawatan dan Klinik di Tanah Suci (AK/PH/KES/06-02-02 Pin. 4/2024 - 22/2/24)
b. GP - Pengurusan Perkhidmatan Rombongan Perubatan di Tanah Suci
c. Aktiviti: Pembukaan dan Operasi Perkhidmatan Farmasi (GP/PH/KES/06-02-12 Pin. 4/2025)
d. LAM - Senarai Semak Pembukaan Unit Farmasi Pusat Rawatan TH Makkah, Lokasi: Stor Pusat PRTH Makkah (LAM/PH/KES/ 06-02-97)
e. LAM - Senarai Semak Pembukaan Unit Farmasi Pusat Rawatan TH Makkah, Lokasi: PRTH Makkah/ PRTH Madinah/ Klinik Maktab (LAM/PH/KES/ 06-02-98)

4.1.2. Mesyuarat Pembukaan Bekalan Perubatan

a. Mesyuarat perlu dilaksanakan dalam tempoh dua (2) minggu selepas operasi bermula.
b. Objektif mesyuarat ini adalah:
    - Membentangkan dan memaklumkan formulari ubat rombongan perubatan haji
    - Merancang dan memutuskan hala tuju penggunaan ubat-ubatan sepanjang operasi
    - Hal-hal lain yang berkaitan.

4.1.3. Taklimat Pembukaan Operasi

a. Semasa fasa pembukaan, beberapa taklimat perlu dilaksanakan kepada petugas perubatan.
b. Terdapat dua (2) jenis taklimat yang perlu dilaksanakan seperti berikut:
    - Taklimat Pembukaan Operasi Perubatan TH
    - Taklimat Pembukaan Operasi Klinik Maktab/Zon

c. Objektif taklimat ini adalah untuk memberi maklumat berkaitan pengurusan bekalan perubatan dan lain-lain isu berkaitan perkhidmatan farmasi.

4.2. FASA OPERASI

4.2.1. Sistem Informasi Avicenna Tanah Suci (SIHAT) dan Sistem TH *Support Services* (THSS)

a. Sistem SIHAT merupakan sistem informasi digital utama bagi menyokong pelaksanaan perkhidmatan kesihatan TH di Tanah Suci sepanjang fasa operasi haji.
b. Bagi tujuan akses setiap petugas rombongan perubatan akan diberi ID dan kata laluan untuk membolehkan capaian ke sistem SIHAT dan THSS (secara berkumpulan).
c. Sebarang isu teknikal atau cadangan penambahbaikan sistem SIHAT hendaklah dilaporkan melalui THSS bagi membolehkan tindakan susulan diambil oleh Unit IT TH.
d. Ketua Pegawai Farmasi bertanggungjawab untuk menyemak dan memantau setiap log laporan yang dikemukakan oleh unit farmasi melalui THSS, bagi memastikan isu yang dilaporkan dapat diselesaikan dengan berkesan serta menjamin kelancaran operasi.

4.2.2. Perkhidmatan yang Disediakan

I. Farmasi Logistik

a. Perkhidmatan Farmasi Logistik yang utama terletak di Stor Pusat Makkah.
b. Stor pusat ini membekalkan stok ubat dan bukan ubat kepada:
    - PRTH
    - Klinik Kecemasan
    - Klinik Maktab

c. Farmasi logistik di stor pusat menjalankan aktiviti pra-bungkus ubat-ubatan
    - Kertas kerja pra-bungkus perlu disediakan dan disemak.
    - Kuantiti pra-bungkus perlu dikemaskini di dalam stor *level* satu (1) setiap kali selepas selesai aktiviti pra-bungkus.
    - Aktiviti pra-bungkus perlu direkod dan dilaporkan.

d. Pesanan ubat dan bukan ubat adalah melalui sistem SIHAT
    - Pemesan perlu membuat pesanan berpandukan formulari operasi haji semasa.

- Pesanan menggunakan Borang Inden Ubat dan Bukan Ubat (Unit Pemesan): BRG/PH/KES/06-02-01a.
- Setiap pesanan perlu dikemaskini dan dihantar mengikut masa yang ditetapkan.
- Setiap transaksi perlu dicatat menggunakan kad petak (LAM/PH/KES/06-02-34 Pin.1/2024).

e. Bagi item yang tiada dalam formulari, preskriber perlu memohon menggunakan Borang Pembelian Ubat dan Bukan Ubat Tanah Suci: BRG/PH/KES/06-02-23 Pin. 1/2025. Perolehan akan dibuat setelah mendapat kelulusan daripada pengurusan tertinggi.
f. Keperluan stok tambahan bagi item sedia ada akan diselaraskan oleh Stor Pusat melalui Timbalan Pengarah Operasi I.

II. Farmasi Pesakit Dalam

a. Perkhidmatan Farmasi Pesakit Dalam membekalkan ubat kepada pesakit yang berada di:
    - PRTH
    - Klinik Kecemasan

b. Aktiviti pembekalan ubat-ubat seperti penyaringan preskripsi, pengisian ubat dan semak silang perlu mengikut garis panduan dan proses kerja yang telah ditetapkandari semasa ke semasa.
    - Jumlah preskripsi, item yang dibekalkan dan intervensi perlu direkodkan.
    - Dokumentasi serta proses pembekalan ubat dan bukan ubat adalah melalui sistem SIHAT.
    - Ubat-ubatan dibekalkan kepada pesakit di wad dan unit sama ada secara individu (*patient basis*) atau secara pukal.
    - Ubat tidak perlu dibekalkan sekiranya maklumat *patient's own medicines* (POMs) dinyatakan dalam pesanan.
    - Pembekalan ubat secara individu kepada pesakit menggunakan Borang Inden Ubat dan Bukan Ubat (Pesakit): BRG/PH/KES/06-02-01b).

- Ubat-ubatan dibekalkan secara *unit of use* (UoU) bagi kegunaan maksima sehingga tiga (3) hari atau bergantung kepada kedudukan stok ubata-ubatan semasa.
- Pembekalan ubat secara pukal melibatkan pembekalan stok wad, stok troli kecemasan dan stok unit kecemasan. Proses pembekalan menggunakan Borang Inden Ubat dan Bukan Ubat (Unit Pemesan): BRG/PH/KES/06-02-01a.
- Aktiviti *bedside dispensing* dan *medication reconciliation* perlu direkodkan.
- Ubat troli kecemasan bagi PRTH dikemaskini mengikut kategori kritikal (kecemasan), semi kritikal (wad/unit) dan tidak kritikal (beg respon perubatan).

III. Farmasi Ambulatori

a. Farmasi Ambulatori memberi perkhidmatan bekalan ubat kepada pesakit luar (zon hijau, klinik kecemasan dan klinik maktab).
b. Aktiviti pendispensan termasuk penyaringan preskripsi, pengisian ubat dan semak silang perlu mengikut garis panduan dan proses kerja yang telah ditetapkan.
c. Pesanan ubat-ubatan oleh preskriber adalah tertakluk kepada formulari ubat rombongan perubatan haji musim semasa dan pesanan adalah melalui Sistem SIHAT dengan menggunakan Borang Inden Ubat dan Bukan Ubat (Pesakit): BRG/PH/KES/06-02-01b.
    - Bagi kes-kes yang memerlukan ubat di luar formulari dan tiada alternatif, preskriber boleh merujuk pegawai farmasi untuk pembelian di Tanah Suci dan pesanan menggunakan Borang Permohonan Pembelian Ubat dan Bukan Ubat Tanah Suci: BRG/PH/KES/06-02-23 Pin. 1/2025).
    - Bagi pembekalan ubat *floor stock*, troli kecemasan dan bukan ubat untuk kegunaan klinik kecemasan dan klinik maktab inden perlu dibuat melalui Sistem SIHAT (Borang Inden Ubat dan Bukan Ubat (Unit Pemesan): BRG/PH/KES/06-02-01a).

d. Perkhidmatan kaunseling ubat-ubatan disediakan bagi kes-kes yang memerlukan penerangan lanjut seperti penggunaan alat bantu perubatan (*medical device*), isu kepatuhan dan masalah penjagaan farmaseutikal yang lain. Setiap kaunseling yang dilaksanakan perlu direkodkan di dalam templat yang telah disediakan.

e. Pemantauan stok klinik perlu dilaksanakan supaya stok tidak disimpan secara berlebihan dan tidak rosak/luput.

IV. Farmasi Farmakoterapi

a. Perkhidmatan farmasi farmakoterapi memberikan perkhidmatan klinikal kepada pesakit dalam di PRTH dan klinik kecemasan.
b. Fungsi utama perkhidmatan Farmasi Farmakoterapi
    - Menyelaras dan melaksanakan aktiviti klinikal bagi memastikan penjagaan farmaseutikal yang optimum serta meningkatkan kepatuhan dan pengetahuan pesakit terhadap ubat-ubatan dan penyakit.
    - Memastikan pesakit menerima ubat yang berkualiti dan selamat.

c. Aktiviti farmasi farmakoterapi adalah seperti pengambilan sejarah pengubatan, pemantauan farmakoterapi, penyaringan preskripsi, membuat intervensi dan memberi maklumat berkaitan ubat-ubatan.
d. Aktiviti *medication reconciliation* dilakukan bagi mengoptimakan penggunaan ubat sedia ada pesakit. Maklumat perlu direkodkan di dalam sistem SIHAT.
e. Perkhidmatan kaunseling secara *bedside dispensing dan* ketika proses discaj adalah disediakan. Setiap kaunseling yang dilaksanakan perlu direkodkan di dalam templat yang telah disediakan.
f. Perkhidmatan tambahan seperti *medication review* turut disediakan di bilik pesakit. Ini bagi memastikan pesakit memahami dan menggunakan ubat dengan selamat dan berkesan.
g. Antara kes klinikal yang sering dikendalikan adalah:
    - Penyakit berjangkit
    - Penyakit kardiovaskular
    - Penyakit endokrin
    - Penyakit psikiatrik
    - Penyakit respiratori
    - Penyakit kulit
    - Rawatan hormone

h. Nota klinikal dan kes simulasi boleh dirujuk pada lampiran 5.2 dan 5.3.
i. Satu aplikasi Linktree “Rx Pharmacy HAJJ” telah diwujudkan sebagai rujukan utama kepada petugas perubatan bagi informasi berkaitan ubat-ubatan dan perkhidmatan farmasi di Tanah Suci.
j. Informasi di dalam aplikasi Linktree perlu dikemaskini pada setiap musim operasi haji mengikut keperluan. Antara kandungan aplikasi adalah seperti berikut:
    - Formulari Ubat Rombongan Perubatan Haji
    - Formulari Ubat Klinik Maktab & Zon
    - Pautan sistem SIHAT
    - Pautan permohonan ubat di luar formulari
    - *Quick Dosing Guide*
    - Clinical Practice Guidelines (CPG)
    - *Renal Dosing Adjustment*
    - *Hepatic Dosing Adjustment*
    - Lain-lain mengikut keperluan

k. Maklumat berkaitan ubat-ubatan juga tersedia dalam sistem SIHAT untuk rujukan semua petugas RP.

V. Lain-lain Perkhidmatan Farmasi

a. Pemantauan *Adverse Drug Reaction* (ADR)
    - Pesakit yang menerima rawatan ubat-ubatan perlu dipantau dengan kesan sampingan dan risiko alahan ubat.
    - Permohonan kad alahan pesakit perlu mengikut tatacara yang telah digariskan di dalam garis panduan pemberian kad alahan ubat.
    - Permohonan melalui borang ADR dan/atau Alahan Ubat yang lengkap perlu dikemukakan oleh pegawai perubatan.

4.2.3. Tugasan atas Panggilan

a. Setiap fasiliti perlu menjadualkan tugasan atas panggilan secara harian melibatkan semua anggota unit.
b. Bilangan anggota yang bertugas perlu dikemaskini mengikut keperluan operasi semasa.

4.2.4. Reten Harian Operasi

a. Laporan aktiviti harian setiap fasiliti perlu direkod dan dilaporkan melalui format yang ditetapkan.
b. Agihan anggota akan disusun oleh Ketua Pegawai Farmasi mengikut beban kerja semasa.

4.2.5. Pelupusan Item

a. Pelupusan stok ubat dan bukan ubat di Tanah Suci dijalankan melalui syarikat yang dilantik oleh pihak Konsul Haji. Pelupusan stok boleh dilaksanakan sebanyak dua (2) sesi iaitu:
    - Pada awal operasi haji
    - Pada akhir operasi haji sebelum penutupan operasi.

b. Pelupusan stok pada awal operasi haji dilaksanakan bagi melupuskan stok yang telah luput pada akhir operasi haji musim sebelumnya. Pelupusan stok pada akhir operasi haji perlu dirancang sekiranya terdapat keperluan.
c. Dokumentasi dan proses pelupusan perlu menggunakan BRG - *Inspection Report Form for Drug/Non-Drug and Request Disposal* (BRG/PH/KES/06-02-22 Pin. 2/2024).

4.3. FASA OPERASI MASYAIR

4.3.1. Jawatankuasa Induk Operasi Masyair (Perubatan)

a. Ahli jawatankuasa ini terdiri daripada pengurusan tertinggi rombongan perubatan dan ketua-ketua unit.
b. Mesyuarat jawatankuasa akan diadakan sebelum operasi masyair bagi membincangkan perancangan dan persediaan operasi. Mesyuarat dipengerusikan oleh Timbalan Ketua Rombongan Haji (Perubatan).

4.3.2. Jawatankuasa Kecil Farmasi Masyair

a. Ketua Pegawai Farmasi bertanggungjawab untuk menyelaras jawatankuasa ini.
b. Tugas jawatankuasa ini adalah mengurus dan menyelaraskan keperluan perubatan (ubat dan bukan ubat) operasi masyair.
c. Ahli terdiri daripada pakar perubatan, pegawai perubatan dan PF.

4.3.3. Persediaan Bekalan Perubatan

a. Bekalan perubatan bagi kegunaan operasi masyair perlu disediakan mengikut senarai yang telah dipersetujui sekurang-kurangnya satu (1) minggu sebelum operasi.
b. Senarai bekalan perubatan akan disediakan mengikut lokasi operasi seperti berikut:
    - Khemah Kecemasan Arafah
    - Pasukan Bergerak Muzdalifah
    - Khemah Kecemasan Mina
    - Pasukan Peronda Perubatan
    - Safari Wuquf
    - Klinik Maktab

4.3.4. Jadual Tugasan Operasi Masyair

a. Jawatankuasa Induk Operasi Masyair (Perubatan) akan menetapkan tugasan utama rombongan perubatan sepanjang operasi masyair.
b. Jadual tugasan Unit Farmasi akan diselaraskan oleh Ketua Pegawai Farmasi mengikut keperluan operasi.

4.3.5. Taklimat Operasi Masyair Unit Farmasi

a. Taklimat perlu diadakan dalam tempoh satu (1) minggu sebelum operasi masyair.
b. Semua anggota unit diwajibkan untuk menghadiri taklimat ini bagi memastikan gerak kerja perkhidmatan farmasi berjalan lancar sepanjang operasi.

4.3.6. Laporan Operasi Masyair

a. Laporan operasi masyair Unit Farmasi perlu disediakan selepas tamat operasi dan dihantar kepada pihak pengurusan rombongan perubatan.

4.3.7. *Post-Mortem* Operasi Masyair

a. Jawatankuasa Induk Operasi Masyair (Perubatan) akan menjalankan mesyuarat *post-mortem* selepas selesai operasi masyair.
b. Cadangan penambahbaikan dari mesyuarat ini akan diaplikasikan pada operasi haji musim seterusnya.

4.4. FASA PENUTUPAN

4.4.1. Proses Penutupan dan Senarai Semak Penutupan

a. Proses penutupan secara berperingkat akan dilakukan setelah menerima arahan daripada pihak pengurusan.
b. Baki akhir stok ubat dan bukan ubat dikira, direkod dan dilaporkan. Baki stok terakhir dicatatkan di dalam Kad Petak (LAM/PH/KES/06-02-34).
c. Data yang dikemukakan perlu selari dengan baki dalam sistem SIHAT.
d. Kemaskini senarai ubat dan bukan ubat di dalam senarai semak Peralatan Perubatan/Bukan Perubatan/Ubat dan Bukan Ubat (LAM/PH/KES/06-06-24).

4.4.2. Nota Serah Tugas

a. Nota serah tugas Ketua Pegawai Farmasi dan semua Pegawai Farmasi Y/M setiap fasiliti perlu disediakan sebelum penutupan operasi mengikut format yang ditetapkan.
b. Dokumen ini perlu disediakan dengan lengkap bagi memudahkan petugas dan melancarkan operasi haji musim seterusnya.

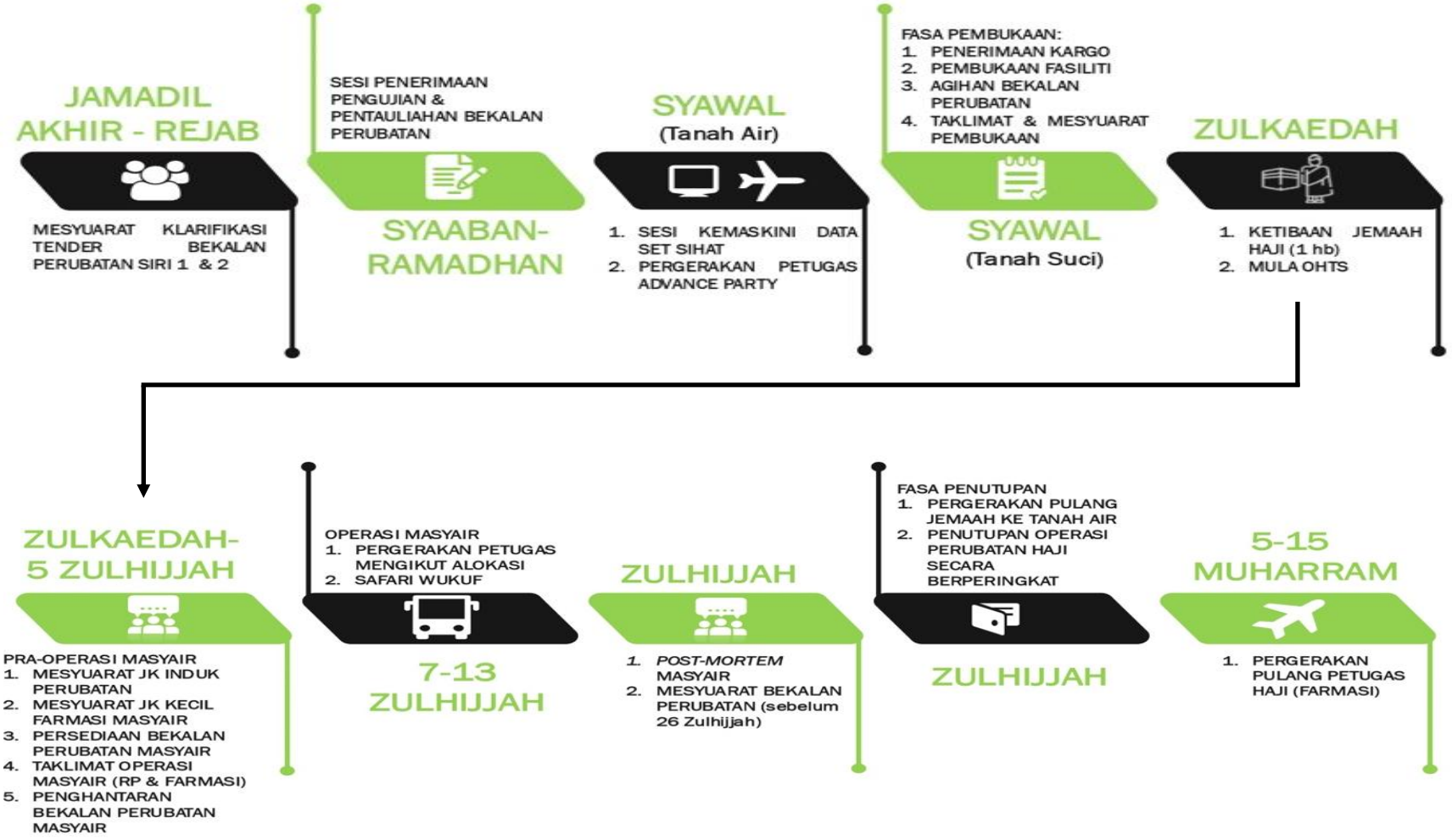
4.4.3. Laporan Penutupan

a. Setiap unit perlu mengemukakan laporan penutupan operasi mengikut format laporan yang disediakan dan diselaraskan oleh Unit Kesihatan Awam (UKA).

4.4.4. Laporan Program Perkhidmatan Farmasi

a. Ketua Pegawai Farmasi perlu melengkapkan laporan operasi unit kepada pihak Program Perkhidmatan Farmasi.
b. Laporan merangkumi:
    - Laporan Akhir Operasi Haji Tanah Suci (OHTS) Unit Farmasi - sila rujuk pautan emel rpfarmasi
    - Laporan Pengeluaran Kad Alahan di Tanah Suci - butiran pesakit dilengkapkan mengikut format yang telah ditetapkan termasuk nama fasiliti rujukan di Tanah Suci.

4.5. GARIS MASA OPERASI HAJI (PERKHIDMATAN FARMASI)



5. LAMPIRAN

5.1. SENARAI DOKUMEN KUALITI OPERASI PERUBATAN HAJI (UNIT FARMASI) MS ISO 9001: 2015 PERKHIDMATAN HAJI (SPK ISO PH)

DOKUMEN	BIL.	TAJUK	NO. DOKUMEN[1]
ARAHAN KERJA (AK)	1	Pembukaan Pusat Rawatan dan Klinik di Tanah Suci	AK/PH/KES/06-02-02 Pin. 4/2024 - 22/2/24
GARIS PANDUAN (GP)	1	Pengurusan Perkhidmatan Rombongan Perubatan di Tanah Suci Aktiviti: Pembukaan dan Operasi Perkhidmatan Farmasi	GP/PH/KES/06-02-12 Pin. 4/2025
	2	Pengurusan Perkhidmatan Rombongan Perubatan di Tanah Suci Aktiviti: Penutupan Perkhidmatan Farmasi	GP/PH/KES/06-02-13 Pin. 4/2025
	3	Pengurusan Perkhidmatan Rombongan Perubatan di Tanah Suci Aktiviti: Urusan Bekalan Ubat dan Bukan Ubat Semasa Operasi Masyair	GP/PH/KES/06-02-35 Pin. 3/2024
	4	Pengurusan Perkhidmatan Rombongan Perubatan di Tanah Suci Aktiviti: Inden Floor Stock	GP/PH/KES/06-02-51 Pin. 3/2024
	5	Pengurusan Perkhidmatan Rombongan Perubatan di Tanah Suci Aktiviti: Pembekalan	GP/PH/KES/06-02-52 Pin. 3/2025
	6	Pengurusan Perkhidmatan Rombongan Perubatan di Tanah Suci Aktiviti: Pendispensan Rawatan Terapi Gantian Methadone	GP/PH/KES/06-02-56 Pin. 3/2025
BORANG (BRG)	1	Borang Inden Ubat dan Bukan Ubat (Unit Pemesan)	BRG/PH/KES/06-02-01a
	2	Borang Inden Ubat dan Bukan Ubat (Pesakit)	BRG/PH/KES/06-02-01b
	3	Borang Inden (Unit Pemesan)	BRG/PH/KES/06-02-02a Pin. 1/2025
	4	Borang Inden (Pesakit)	BRG/PH/KES/06-02-02b Pin. 1/2025
	5	*Inspection Report Form for Drug/Non-Drug and Request Disposal*	BRG/PH/KES/06-02-22 Pin. 2/2024
	6	Borang Pembelian Ubat/Bukan Ubat Tanah Suci	BRG/PH/KES/06-02-23 Pin. 1/2025

DOKUMEN	BIL.	TAJUK	NO. DOKUMEN[1]
LAMPIRAN (LAM)	1	Senarai Semak Peralatan Perubatan/ Bukan Perubatan/Ubat Dan Bukan Ubat	LAM/PH/KES/06-02-24
	2	Kad Petak	LAM/PH/KES/06-02-34 Pin.1/2024
	3	Buku Rekod	LAM/PH/KES/06-02-37 Pin. 1/2025
	4	Carta Pemantauan Suhu	LAM/PH/KES/06-02-38 Pin.1/2024
	5	Senarai Semak Pembukaan Unit Farmasi Pusat Rawatan TH Makkah Lokasi: Stor Pusat PRTH Makkah	LAM/PH/KES/06-02-97
	6	Senarai Semak Pembukaan Unit Farmasi Pusat Rawatan TH Makkah Lokasi: PRTH Makkah/PRTH Madinah/Klinik Maktab	LAM/PH/KES/06-02-98

[1] No dokumen bergantung kepada tahun operasi haji. No Dokumen yang lengkap dan terkini boleh dicapai melalui sistem SIHAT.

Kemaskini: 22.8.2025

5.2. NOTA KLINIKAL

Nota klinikal boleh dicapai melalui pautan dibawah:

Penyakit Berjangkit
Penyakit Endokrin
Penyakit Kardiovaskular
Penyakit Kulit
Penyakit Psikiatrik
Penyakit Respiratori
Rawatan Hormon

5.3. KES SIMULASI

Case 1

Mr Z is a 43 years old gentleman with underlying DM, admitted to PRTH Makkah for worsening delirium with acute onset AUR since 2/7 ago. He has been having complaints of dysuria and urinary incontinence since 3 weeks ago. Prostate examination and US prostate showed remarkable prostatomegaly with obstructive uropathy. Acute intervention required CBD insertion to relieve symptomatic AUR and coincidentally, patient developed hematuria with significant UTI symptoms (elevated WBC, low grade fever became high grade fever). Patient's RP showed improving AKI (SCr: 231-->108 µmol/L). Further history taking, patient had been previously treated with C. Cephalexin 250mg TDS x 5/7 and T. Augmentin 625mg TDS x 5/7 in 1 week gap of each treatment prior current admission.

1) Lay out the pharmacotherapy plan for short- and long-term management.

- *Empirically treat with IV antibiotic such as IV Ceftrioxone 2g OD.*
- *If fever persistently high, may use broader spectrum antibiotic.*
- *Add IV Tranexamic acid if hematuria persists.*
- *Add Alfa-blocker (e.g., doxazosin or tamsulosin) to relieve BPH symptoms.*

2) Important information and counselling points during patient advocacy.

- *Maintain adequate hydration.*
- *Empty the bladder regularly and avoid prolonged urine retention.*
- *Practice bladder training (with physiotherapist guidance if needed).*

Case 2

Mr W is a 73 years old gentleman with underlying poorly controlled DM (baseline HbA1c: 9.8%), HTN and recurrent lower limbs stasis eczema due to persistent intertrigo and cracked heels. He was presented to PRTH Makkah for worsening in R leg cellulitis not responding to initial treatment with C. Cloxacillin 500mg QID x 5/7. Upon examination, vital signs are stable but patient has high grade fever with complaints of persistent pain over the affected limb, where the cellulitis progressed into bullous with initial necrotic

patch. Patient was immediately started with IV Unasyn 3g TDS upon admission but his infective parameters post 72 hours are slow to responds despite maintaining good hemodynamic stability and RP.

1) Suggest revision of pharmacotherapy plan (if indicated)

- *Add IV Clindamycin 900mg TDS (with renal adjustment as required).*
- *Provide wound care and skin management for cellulitis (e.g., dermacyn solution, vaseline).*
- *Perform Incision and drainage (I&D).*

2) What are the preventive measures to reduce risk of developing recurrent cellulitis?

- *Ask patient to control sugar level, as to expedite healing process.*
- *Keep the affected area clean and avoid frequent, unnecessary contact to avoid spreading of infection.*
- *Constantly hydrate and moisture the skin using emolient cream (such as vaseline, aqueous cream) to prevent cracked heels, and to reduce symptoms of eczema.*
- *Wear proper shoes.*

Case 3

Madam L is a 36 years old lady with complaints of GI symptoms, fever and acute, persistent diarrhea associated with stomach cramping. Her symptoms occurred after she shared meals packed from Malaysia (chicken rendang) with her roommates. Initially she had vomitting for 3-4 times and unable to consumed orally well for 1 day. Upon her arrival in PRTH Makkah, she has been put on 1 pint IV DS for hydration support. Her BP appeared to be lowish but otherwise stable without inotropic support. IV Metochlorperamide 10mg TDS was started and vomitting resolved with only residual nausea. Her watery diarrhea with dysentry and cramping still persistently occured 2-3 times per day. Suggest pharmacotherapy management for her current condition.

Symptomatic diarrhea management:

- *T. Charcoal 500mg TDS/PRN to absorb the residual cause of food poisoning.*
- *KIV to add T. Hyoscine 10mg to resolve stomach cramping, watery stool if present.*
- *KIV T. lomotil to stop the diarrhea if purging caused dehydration.*
- *Add ORS per purge/diarrhea.*
- *Encourage orally intake with soft food for better hydration and nutrition.*

Case 4

Mr ZY is a 58 years old gentleman with underlying DM, HTN and chronic history of sinusitis, presented to the Outpatient PRTH Makkah for persistent complaints of postnasal drips, facial pain, headache, low grade fever and nasal obstruction. On observation and examination, the patient was noted to have facial swelling with inflammed nasal mucosal,

postnasal mucous and prominnent nasal polyps. He admitted that the current symptoms have been recurring and not responding to regular oral and intranasal antihistamines since 1 month ago upon arrival in Saudi.

1) *Suggest the treatment course that will be required to treat the current acute flare: - Anti infectives and agents to reduce his sinus inflammation*

- *Nasal irrigation (e.g., Menthol Crystal or Sodium Chloride eye drop that can be used as saline nasal drops).*
- *Intranasal decongestant (e.g., Oxymethazoline 0.05% nasal spray 2puffs BD then de-escalate to PRN depending on symptoms progression).*
- *May consider short term intranasal steroid (e.g., Mometasone/Beclomethasone/ Budesonide nasal spray 2puffs BD maximum of 14 days) to reduce nasal polyps and facial swelling due to intranasal inflammation.*
- *May start with oral antibiotic (e.g., C. Amoxycillin, T. Augmentin) for 1 week.*
- *Antihistamine with decongestant properties containing pseudoephedrine (e.g., T. Actifed/T.Clarinase).*

2) *What are the important counselling points to be given to the patient especially with regards to antihistamine use and other pharmacological management for future prevention.*

- *Emphasize compliance with intranasal steriod and antibiotic courses, ensuring that duration does not exceed prescribed limit to avoid rebound congestion caused by sympathomimetic agent overexposure.*
- *Handling of nasal spray (refer to counseling checklist).*
- *Advised rinsing the nasal cavity after using steroid intranasal spray to minimize local side effects.*
- *Precautionary steps when taking pseudoephidrine based antihistamine, to watch out for drowsiness, gait instability and poorly controlled HTN symptoms while on treatment. Advice patient on the best time to take antihistamine if patient experienced CNS depressants side effects (night time or during resting time).*

Case 5

Miss D is a 27 years old lady with NKMI, presented to ED PRTH Makkah with worsening discharge from her left eye and blurring of vision. Her symptoms started with mild irritation on both eyes when she wore her contact lenses more than 24 hours without removal. However, the irritation did not resolve after 72 hours and progressively worsened, leading to redness in the right eye and profuse discharge with blurring of vision in the left eye. She was initially given CMC eyedrop 1 drop TDS x 5/7 for both eyes. However, she reported no improvement in her symptoms even after 4 days of use. On further examination, she was diagnosed with bilateral conjunctivitis with left eye corneal ulcer.

1) *Suggest the step-up treatment for her current conjunctivitis.*

To change cmc eye drop to Moxifloxacin /Ciprofloxacin /Levofloxacin eye drop 1 drop QID X 1/52

2) What other treatment can be offered to alleviate the hyper lacrimation and inflammation of her left eye?

To reduce hyperlacrimation, artificial tears (2 drops, four times daily for 1 week) can be added. Warm compresses may be applied, and eye discharge should be wiped gently with clean disposable tissue. The patient should also avoid frequent contact with the eyes and practice proper hand hygiene.

If lacrimation persists and significantly affects vision, consider adding ketorolac 0.5% eye drops (1 drop, four times daily) or atropine 1% eye drops (1 drop, three times daily), with dosing adjusted according to symptom progression.

3) What are other important assessments needed from pharmacist's points of view in order to personalize the counselling points?

Assess patient compliance and technique using eye drop. Counsel on compliance, technique of using eye drop. Avoid close interaction with other person, practice good hand hygiene and wear glasses while abstaining from contact lense until full recovery is achieved.

Case 6

Madam N is a 49 years old lady with underlying HTN, arthritis (on T. Methotrexate 7.5mg weekly) and DM, was referred to PRTH Makkah for worsening in SOB. She has been having SOB upon exertion with URTI symptoms since her arrival in Madinah 3 weeks ago and thus, has been seen by the primary team in Maktab before. She was previously treated with T. EES 400mg BD x 5/7, followed by C. Amoxicillin 500mg TDS x 5/7 during her subsequent antibiotic course 8 days later. Her symptoms during the current visit to Maktab did not resolved with Salbutamol nebulizer. Upon admission to PRTH Makkah, she's on her 3rd antibiotic course with T. Cefuroxime 250mg BD since 2 days ago. She appeared to be pale, tachypneic and tachycardic with slight feverish, but otherwise her general vital signs were stable during admission. Her lab results showed normal RP but her FBC revealed mild neutropenia (ANC: 1.2) and leucopenia, CXR in ED showed clear lungs. She was diagnosed with recurrent acute bronchitis for further investigations.

1) Suggest the current investigations that might be useful to support the direction of anti-infective choice for this patient.

CRP and other infection related investigations if available (C&S, ESR and etc.). To monitor for ANC (leucocyte) and lymphocyte count since patient is actively on T. MTX that may over suppress her immunity.

2) *What are the possible causes leading to the recurrent acute bronchitis and how should these factors be addressed?*

Use of immunopressant -> Suggest for temporary discontinuation and KIV reinitiation with tapering dose

- *Newly diagnosed with hyperactive airways -> need for regular MDI Salbutamol*
- *Stepping up of antibiotic to IV Ceftriaxone 2g OD x 5-7 days and KIV for IV Levofloxacin 500mg OD x 5 days if her conditions didn't improve after 72 hours on IV Ceftriaxone.*
- *May add T. Prednisolone 30mg OD for 5 days course to reduce inflammation, and KIV to taper down gradually to lower dose as MTX temporary replacement.*

3) *Should patient be started on bronchodilator? If yes, suggest the regimen and duration of use.*

Yes. MDI Salbutamol 2 puff QID/PRN or Berodual 2 puff TDS for 1-2 months 1st while patient is still having acute trigger while in Saudi, KIV to wean off after complete symptoms improvement.

Case 7

Tuberculosis case: Mr W is a 38 years old gentleman with underlying lymphoma (in remission since 7 years ago) and newly diagnosed PTB 6 weeks prior to his departure to perform pilgrimage. He had been started on intensive phase of T. Forecox-4 4 tablets OD since then. Mr W paid a visit to the primary clinic in Maktab for his persistent lethargy and joint pain, where he claimed has been progressively worsening in trend after the anti TB treatment initiation. Upon reviewing his TB record book, he is currently on day-78 of T. Forecox-4. His body weight was also noticeably reduced from 65kg to 60kg during his stay in Makkah. Upon assessment, there was no jaundice or acute liver failure symptoms observed.

1) *Suggest for the relevant investigation required to support the subsequent clinical diagnosis.*

- *Chest X-ray, AFB sputum if available.*
- *Assesment on overtreatment with intensive antiTB phase that was dosed based on previous body weight instead of adjusted to the current one.*
- *Monitor for FBC since Rifampicin may lead to myelosuppression.*

2) *What pharmacotherapy adjustment are required for this patient?*

Change to maintenance phase 4 months (total of 6-9 months of treatment) T. Akurit-2 with T. Pyridoxine (dose adjustment base on body weight).

3) *What are the pertinent counselling points needed to be enforced for patient advocacy?*

- *Importance of compliance of medication and to complete treatment, to advocate patient on expected duration of both intensive vs maintenance treatment.*
- *Side effect of old regime and new regime--> to highlight on when will the SE experienced by him is considered moderate to severe and required immediate medical care and attention*
- *Refer counseling point on TB*

Case 8

Madam Y is a 77 years old lady with underlying IHD, HTN, DM and mild COPD (GOLD B), admitted to PRTH Makkah from clinic Maktab due to acute SOB with shock syndrome. Her BP upon arrival to ED PRTH Makkah was lowish and supported with single strength IVI Noradrenaline to achieve MAP of 65. She was stable and tolerating ventimask 40% with her SPO2 maintained at 95%. CXR showed bilateral perihilar hazziness with hyperinflated features. Prior to the current ED admission, she had several visits to clinic Maktab for recurrent low grade fever, SOB upon exertion and chronic cough since arrival in Saudi. She was repetitively treated with 4 courses of antibiotics since 3 weeks ago and claimed that her symptoms were not alleviated. FBC showed predominant leucocytes (17) and elevated CRP of 98, with current high grade fever.

1) *Suggest for empirical anti-infective treatment course that is suitable for her.*

IV Tazocin 4.5g QID/IV Cefepime 1g TDS x 5-7 days is preferred due to severe pneumonia accompanied with septic shock. If longer abx course is required as outpatient management, may consider T. Levofloxacin 500mg OD for 5 days to complete a maximum total antibiotics duration of 14 days.

2) *What are the symptomatic management that can be suggested to relieve her SOB and high-grade fever?*

Neb Combiven and Neb Salbutamol 4-6 hourly depending on oxygenation saturation. KIV to add Neb Budesonide BD x 3 days if patient is still having unresolved hyperactive airways and rhonchi. T. Paracetamol 1g TDS (older person) and tepid sponging. If there is no contraindication for NSAIDs, T. Ibuprofen 1g BD may also be combined with T. PCM in the event of persistent and difficult to resolve pyrexia.

3) *What are the precautionary measures needed to be done prior suggesting the treatment?*

Referring to the second question, regular nebulization may lead to hypomagnesemia and hypokalemia. Before exercising regular nebulization with either Combivent or Salbutamol

(or in combination), suggest to regularly monitor baseline RP for electrolytes. If patient does has electrolyte imbalance, suggest to correct potassium and magnesium levels. MDI Budesonide 2puffs BD with aerochamber maybe added to expedite hyperactive airways symptoms in COPD for short term.

4) What are the counselling points to be given to this patient regarding to her treatment?

Patient may need to be discharged with short term MDI to manage her potentially remaining SOB symptoms post severe infection. To check if patient is already on any inhalation devices for her COPD. MDI Berodual/Budesonide might be prescribed for short term duration. To advise patient to regularly use the MDIs with aerochamber first for the next 14-30 days to ensure proper drug delivery, depending on symptoms improvement before switching back to her old inhalation devices.

Case 9

Mr TN is a 41 years old gentleman with NKMI, presented to clinic Maktab for persistent high-grade fever, sore throat, oral ulcers, lethargy and generalized rashes since 2 days ago. Prior to this, he had not seek any medical treatment and only resorted to complete rest with hydration. Upon assessment, the patient was diagnosed as having measles and transferred to PRTH Makkah for treatment and isolation purposes. His lab investigation returned as normal RP and FBC showed mild thrombocytopenia.

1) Suggest the treatment course with anti-infective and symptomatic management.

Measles does not require antibiotics or other anti-infective treatments because it's caused by a virus (specifically the measles virus). Lab investigations normal hence patient symptoms not due to infection. However, anti-infective maybe needed if it caused by virus e.g. If patient developed pneumonia secondary to measles, anti-infective choices would be T. Augmentin 625mg TDS for 5-7 days (selection of T. Augmentin over Amoxycillin due to patient having NKMI). Keep patient hydrate and may prescribe those medicines (depending on availability) for treat the symptoms:

- *Fever: PCM 1G TDS-QID*
- *Sore throat: Chlorhexidine gargle/Lozenges*
- *Ulcers: Gengigel/Triamcinolone paste/Bonjela*
- *Rashes: Aqueous cream/Calamine lotion*

IV Acyclovir will only be considered in the case of severe measles associated with encephalitis. Oral acyclovir may only be prescribed if the patient has no previous MMR vaccination, has never contracted measles previously (no preexisting immunity) or has immunosuppressed condition (taking immunosppressants, on chronic steroids or HIV).

2) *What are the monitoring parameters and counselling points needed to be advocated to the patient?*

Contact precaution since it can be spread patient's roomates and surrounding people. Maintain good hydration. To monitor for platelet trend and symptoms of thrombocytopenia such as gum bleeding etc.

Case 10

Miss JI is a 63 years old lady with underlying poorly controlled DM, presented to clinic Maktab for acute occurrence of blistering rash over her back extended until her waistline. She also complained of frequent shooting pain over the affected and area nearby the blisters. Upon assessment at the clinic, she was diagnosed with shingles complicated with herpetic neuropathy.

1) *Suggest pharmacotherapy plan for her in the management of anti-infective and herpetic neuropathy pain.*

Anti-infective: PO Acyclovir 800mg 5x daily for 7-10 days (Common S/E: nausea, headache)
Herpetic neuropathy: PO Gabapentin 300mg OD. Can further increased as needed up to 3600mg per day individed doses as tolerated (Common S/E: Sedation, dizziness, peripheral edema). May also consider regular T. PCM 1g TDS with/ short term C. Celecoxib 200mg BD.

2) *Since she is at higher risk of recurrent infection, what can be done to reduce her future risk?*

Preventive measure to reduce her future risk:

- *Stringent T2DM control since poorly controlled disease will incur risk of being immunocompromised*
- *Patient should received varicella-zoster vaccine after at least 3-6 months post infection and with good T2DM control to boost and maintain adequate immunity.*
- *She also need to regularly disinfect and dress the blister wound properly to prevent infection to the open wound that may delay healing process since she is diabetic.*

Case 11

A 46 years old lady was admitted to PRTH Makkah for bruising on her arm after she was accidentally hit by other pilgrimages during stone throwing in Jamrat. Her vitals were otherwise stable during presentation to ED. Patient has been on T. Warfarin 4mg OD only for thrombosis prevention in mechanical valve replacement since 2007. Baseline INR taken in ED was 6 (target 2.5-3.5), prompting the immediate treating physician to serve IV Vitamin K 3mg STAT despite of the bruising not increasing in size/ pain at the site. Her

Warfarin dose was also withheld. USG of her bruised arm showed no hematoma collection. Repeated INR after 1 day of Vit K administration was 1.3.

1) *What are the appropriate steps to manage over warfarinization in this case? - How should the Warfarin dose be adjusted to boost back the INR level to the MVR target during hospitalization?*

Managing overwarfarinization for patient on warfarin therapy with high INR and without bleeding:

- *INR 4.5-10.0: For low bleeding risk - omit warfarin dose, check INR within 24hrs, resume warfarin when INR reduces to/below therapeutic range. For high bleeding risk, omit warfarin dose and initiate Vitamin K 1-2mg PO or 0.5-1mg IV*

**by stopping 1 day of warfarin, INR could reduce by 0.3-0.5*

- *To boost back the INR level, suggest for booster dose of warfarin of 5mg x 2/7 and to resume warfarin with lower dose of warfarin (by 5% reduction of weekly dose.*

2) *What are potential triggers for her over warfarinization?*

Potential triggers for overwarfarinization - stress status, change of environment, change of diet intake/appetite and lifestyle during Hajj activities e.g. change of sleep pattern and physical activities, drug-warfarin interaction e.g. if patient took her own painkillers or using a lot of methylsalicylate-based topical ointment.

3) *Taking into considerations on the over warfarinization risks, how should the dose adjustment be made once TTR of Warfarin is achieved?*

Suggest to restart back warfarin with lower dose (by 5% reduction of weekly dose). If discharged, for short TCA to review INR and warfarin dose. To take into consideration: patient's diet intake, lifestyle, over-the-counter medication history

Case 12

Mr F, a 41 years old gentleman was admitted to PRTH Makkah for persistent L sided chest pain after he completed sa'ie. The pain was associated with intermittent SOB, profuse sweating and near to black out episodes even at rest. He was brought to the nearest emergency center for acute management, where ECG depicted STEMI was diagnosed. He was given sublingual GTN spray 400mcg/dose, IV Morphine 5mg STAT, T. Ticagrelol 180mg STAT and T. Aspirin 300mg STAT for the initial management. The patient was a known case of IHD and CABG for 2VD was done in 2022, Dyslipidemia, well controlled HTN and DM. He was actively on SL GTN 500mcg PRN, T. Clopidogrel 75mg OD, T. Cardiprin 100mg OD, T. Atorvastatin 40mg ON, T. Telmisartan 80mg OD, T. Metformin 1g BD and T. Vildagliptin 50mg BD which were all restarted during his admission in PRTH

Makkah. His vital signs and other lab parameters are unremarkable except for elevated Trop T and CKMB. Patient otherwise had good compliance to treatments and was just recently stopped smoking prior to his departure for hajj.

1) *Is there any additional treatment for his anginal attack required on top of the current treatment?*

May consider adding antianginal which is T Isordil 10mg TDS or T Isosorbide Mononitrate 30mg OD if patient is unable to tolerate IR formlation (headache, dizziness). If anginal symptoms persist, to add T Trimetazidine 10mg TDS/T Trimetazidine MR 35mg BD. If the patient has a resting heart rate beyond 70bpm, suggest to add T. Bisoprolol 1.25mg OD and KIV to optimize later.

2) *What are the necessary counselling points to be included during his therapy advocation?*

Cardiac Rehabilitation Programme Counselling especially if the patient is prescribed with additional medications. Use of S/L or GTN spray during emergency. Storage of GTN during his stay in Makkah to avoid spoilage.

Case 13

Madam K, a 55 years old lady was directly admitted to PRTH Makkah upon landing in Jeddah for sudden onset SOB. She was previously had NKMI. Emergency CTTAP done in King Faisal Hospital showed that she had acute PE, potentially provoked by reduced ambulation, and she was then started with SC Clexane 60mg BD (BW: 65kg) intended for 3 months. Her other risk factor is the recent OCP that she consumed for the past 2 months for the purpose of menstrual suppression during hajj. Patient is not keen for injectable treatment.

1) *Suggest for alternative regimen and switching method required.*

Due to difficulty to start and monitor warfarin during Hajj season, DOAC such as T. Rivaroxaban is preferred. Suggest to start T. Rivaroxaban 15mg BD for 21 days and subsequently 20mg OD to complete for the 1st 3 months of treatment.

2) *Counselling points for her treatment and disease management.*

Patient needs to be counselled on the indication and expected treatment duration with DOAC. Further monitoring of PE progression is required to decide on the need for Rivaroxaban extension to 6 months if the thrombus is still post significant threat. She needs to be informed on the signs and symptoms of bleeding tendencies, and actions to be taken if bleeding occured.

Case 14

Mr WS is a 43 years old gentleman admitted by referral from clinic TH to PRTH Makkah for further management of poorly controlled HTN with persistent lower limb edema that were newly diagnosed in Tanah Suci. His BP upon arrival is 171/101mmHg and previously recorded as 169-188/97-110mmHg during routine clinic f/u. He was started on T. Nifedipine 10mg TDS and T. Frusemide 40mg OD since 5 days ago, however, the symptoms didn't improved. His RP showed AKI worsening in trend. Patient previously had a history of chronic NSAIDs intake for 3 weeks to alleviate his knee pain while he's in Tanah Suci. UFEME showed presence of proteinurea 2+ and albumin level is mildly low. He was diagnosed with HTN emergency with AKI and proteinurea.

1) *How should his condition be managed to reduce the risk of worsening AKI while adequately maintaining good BP control?*

To maintaning BP control, patient need to start with IVI Glyceryl trinitrate (titrate accordingly based on body weight), off T Nifedipine and change to T. metoprolol & T. prazosin. IV Frusemide infusion may be considered but required to proceed with cautions since patient has ongoing AKI. Once AKI improving, to add on ACEI/ARB for proteinuria. T. Diltiazem may be used as ACEI/ARB alternative in the event of slow AKI improvement. Precaution of bradycardia if Metoprolol and Diltiazem are combined to gether, so lowest effective dose tolerated should be exercised.

2) *How should the aim for targeted BP reduction be planned/ carried out?*

Since the current state is considered as HTN emergency, target to reduce BP slowly by 10-25% within minutes/hrs and slowly tritrate down IVI GTN accordingly.

3) *Counselling points for his treatment initiation.*

Frusemide can lead to overdiuresis that can cause AKI, need to advise patient on dose adjustment with PRN basis on top of regular dosing if needed. Edema can caused by T. Nifedipine. If patient newly started with T. Prazosin, to counsel on monitoring of BP and symptoms of hypotension. If patient start with ACEI/ARB, to monitor RP weekly basis in Maktab.

Case 15

Mr UL is an 85 years old elderly with underlying HTN, IHD with HFrEF and well controlled DM. His POM included T. Entresto (49/51mg) 1/1 OD, T. Rosuvastatin 10mg ON, T. Cardiprin 100mg OD, T. Dapagliflozin 5mg OD, T. Telmisartan 40mg ON, T. Carvedilol 6.25mg BD and T. Spironolactone 25mg OD. He was presented to ED PRTH Makkah for sudden episodes of LOC since 2/7 ago. Associating symptoms include URTI, LOA and fever since 5 days ago prior to the current admission. BP upon admission ranged between 89-95/47-53mmHg, IVI Noradrenaline 0.24mg/Hr was initiated for hemodynamic support. Patient appeared dehydrated and IV NS 2 pints were administered. All of his BP lowering

agents were withheld until hemodynamic stability was achieved. His RP showed mild AKI, FBC and chest X-Ray revealed remarkable CAP features. IV Augmentin 1.2g BD (renally adjusted) was initiated and planned for 5/7. Upon further review, patient's baseline BP is usually kept comfortably at 110/71mmHg.

1) *What are the possible agents that might worsen hypotensive events during his acute infection phase?*

Entresto, Telmisartan, Spironolactone, Carvedilol, Dapagliflozin.

2) *How can his POM be reinitiated after hemodynamic stability has been achieved?*

Start one by one agent with lowest effective dose. Since risk of severe hypotension in elderly is the highest with Entresto, suggest to restart T. Telmisartan 40mg ON first, followed by Dapagliflozin 5mg OD and lastly Carvedilol 6.25mg BD. Since Dapagliflozin has dual properties intended for T2DM and HFrEF management, Spironolactone and Entresto reinitiation maybe start later once a stable BP and cardiac function have been established while he is in Makkah.

3) *Counselling points on monitoring and management of orthostatic hypotension symptoms*

Patient needs to be advocate on his recent medication changes and rationale behind it. To advise patient to continue BP monitoring in Maktab and KIV Spironolactone/Entresto reinitiation if indicated as an outpatient follow up.

Case 16

Madam Q, a 56 years old lady with underlying BA was admitted to PRTH Makkah due to persistent AEBA that subsequently worsens for the past 1 day. Accompanying symptoms include intermittent SOB with nocturnal bronchospasm and dry cough worsening in frequency since her arrival to Tanah Suci. She was started on Neb Pulmicort 1mg BD x 2/7, Neb Salbutamol and NS QID during the acute phase with hyperinflated lungs. Subsequently she was restarted on her old inhalation devices which were Seretide Evohaler 25/125mcg 1 puff BD upon restabilization.

1) *Is the current treatment adequate for her condition?*

No, the steroid base inhaler is underdosed for an adult treatment. She also needs treatment for her nocturnal bronchospasm.

2) *What other lab investigations needed to be reviewed to justify treatment optimization?*

FBC and infective markers TRO infection induced AEBA and Eosinophil trend for hyperinflammation state, PEFR to assess lungs functions

3) Assessment and counselling points required to be informed to patient

Suggest to change to Seretide Accuhaler 50/250mcg 1puff BD as patient received low dose of evohaler. Counselling on accuhaler technique & Emphasize on compliance. Reduce physical activity, Wear mask, avoid indoor/ outdoor air pollutants. Counsel on the potential adverse effect. Addition of T. Montelukast 10mg ON for her nocturnal symptoms.

Case 17

Mr I, a 78 years old gentleman was hospitalized in PRTH Makkah for AECOAD with worsening SOB and not adequately responding to MDI Berodual 2p TDS/PRN and MDI Salbutamol 2p PRN. Patient has been diagnosed with COPD GOLD D since 7 years ago and has been dependent on LTOT 2L for 6 hours/ day. His current treatment are IV Augmentin 1.2g TDS, MDI Berodual 2p TDS, MDI Salbutamol 2p QID, MDI Flixotide 2p BD (POM), Anoro Ellipta 1p OD (POM) and Spiriva Respimat 2p OD (POM). In the ward, patient showed slow but progressive improvement but his inhalation power and effort are still at minimal during spirometry assessment. Patient was also noted to has urinary incontinence.

1) Are the current treatments warranted and suitable to continue?

Not suitable to continue. Suggest to continue MDI Salbutamol, Anoro Ellipta and MDI Flixotide. His overusing anticholinegic inhalers (Spiriva + Berodual + Anoro Ellipta) caused urinary retention.

2) Counselling points and assistive device to optimize patient's inhalation technique?

To counsel MDI with aerochamber and assess inhalation technique. Patient required the use of aerochamber assisted MDI since his inhalation effort is inadequate to ensure complete inhalation of MDI.

3) Monitoring of current treatment side effects

Monitor the urinary incontinence symptoms.

Case 18

A 62-year-old female pilgrim with underlying diabetes mellitus (DM) and hypertension (HPT) presented to Klinik Maktab with complaints of dizziness and weakness. She had just returned from Masjidil Haram after Subuh prayer. The patient reported feeling weak for the past five days. While she had taken her usual insulin dose that morning, she hadn't eaten breakfast three hours after the injection. Her blood glucose level was measured at 3.4 mmol/L. She is currently on Metformin 1g BD, S/C Actrapid 22u TDS, and S/C

Insulatard 26u ON for her DM but did not bring her glucometer to Makkah. The patient typically fasts on Mondays and Thursdays and spends most of her time in Masjidil Haram performing Tawaf Sunnah and other prayers. She walks to the mosque (approximately 1 km away from her hotel) three times daily.

1) What is the first treatment for hypoglycemia?

Take 15 g of simple CHO e.g:

- *1 tablespoon of honey,*
- *150-200 ml of fruit juice such as orange juice or regular soft drink; or*
- *3 teaspoons of table sugar dissolved in water.*

Measure plasma glucose after 15 minutes. If the level at 15 minutes is still <3.9 mmol/L, another 15 g of CHO should be taken.

2) Does her medication regimen, with daily activities in Makkah, seem appropriate?

Not appropriate. Since her dietary intake and physical activity have changed in Makkah, consider restarting with a simpler insulin regimen at a lower dose based on her SMBG. If her SMBG is satisfactory, switching to BIDS may be an option; otherwise, resuming a lower-dose basal-bolus regimen could be considered. Keep insulin analogs in view if indicated to facilitate lifestyle adjustments in Makkah.

3) Can a DM patient fast regularly while in Makkah?

With proper dose adjustment and medical supervision, some diabetes patients may be able to fast. Insulin or medication doses may need to be reduced or adjusted to prevent hypoglycemia or hyperglycemia. Consulting a doctor/pharmacist before fasting is essential.

4) What are the important counselling points if she wants to continue fasting and walking daily?

- *Highlight on the need to eat appropriate amount of food 30 minutes after insulin injection to prevent hypoglycemia.*
- *Dose adjustment is necessary, especially for SC Actrapid in the morning and afternoon if fasting*
- *Perform SMBG frequently whenever feeling sick.*
- *Bring sweet/sugar/honey/drink juice for rescue during hypoglycaemia.*
- *Proper insulin storage*

Case 19

Mr. AH is a 75-year-old pilgrim who uses a wheelchair. He presented to Klinik Kecemasan Al Janadriah accompanied by his son after completing his first Umrah. The patient had

arrived in Makkah only the day before. He reported experiencing abdominal discomfort, vomiting in over five episodes, and coughing. Mr. AH has underlying diabetes mellitus (DM) and is on S/C Actrapid 16u tds and S/C Insulatard 20u. His blood pressure was 117/60 mmHg, pulse 118 beats per minute, afebrile (no fever), and random blood sugar (RBS) high. Further investigation revealed that Mr. AH has been regularly missing his insulin injections due to the busyness of preparing for his pilgrimage. He completely skipped his insulin for the past two days (travel day and the following day) because of poor appetite and felt his insulin wouldn't be necessary. Upon further assessment, it was noted that his ketone level was 2 mmol/L and he had fruity breath, both indicators of potential ketoacidosis. According to his son, Mr. AH self-administered his insulin injections. However, the son expressed concerns about his father's recent adherence to the medication regimen. A further check revealed that Mr. AH's insulin pen was visibly dirty, the needle remained attached to the pen, and the unopen insulin cartridge was stored within the pen case.

1) What are the important counselling points?

Adherence to insulin treatment. Insulin injection techique and storage (needle need to be detached from pen & change needle after max 3 times use). New needles are used to prevent infection or clogging. Unopened insulin catridge need to be stored in 2-8 degree.

2) Explain the risk of hyperglycemia and what is DKA to patient and son.
Complications of hyperglycemia include:

- *High blood pressure and chronic kidney disease*
- *Heart disease, which increases the risk of heart attack and stroke*
- *Peripheral neuropathy*
- *Eye problems that can include loss of vision*
- *Foot issues due to damage to nerves and blood vessels, which can lead to sores, infections, and issues with mobility*
- *Bone and joint problems, such as osteoporosis and osteoarthritis*
- *Gum and tooth disease*
- *A weakened immune system, which increases the risk of infections*

Diabetic ketoacidosis (DKA) is an acute, major, life-threatening complication of diabetes, when the body starts breaking down fat instead of glucose for energy, leading to the production of acidic ketones. These ketones build up in the blood, making it acidic, which can cause severe dehydration, organ failure, and even death if not treated promptly.

Case 20

Patient is 52-year-old male pilgrim with NKMI. Came to KK Janadriyah with chief complaint of increasing fatigue and weakness. Patient had an acute worsening of progressive weakness over the past week. He felt so weak that he almost "passed out." He also reported an increased fluid intake and an increase in urinary output. There was no pain

on urination or history of urinary tract infection. He denied chest pain, vision problems, nausea, diarrhea, and syncope. Wife was concerned that the patient was "wobbly" when he walked to masjidil haram. While waiting in the emergency room, the patient experienced 2 tonic-clonic seizures. Physical Exam Findings: Blood pressure 71/36 mm Hg; Pulse 115 bpm; Respiratory rate 22 bpm; and Temperature 36.9°C. The patient was awake and responsive but not oriented. The skin was dry and turgor was poor. The oral mucosa was also dry. The abdominal exam revealed mid-epigastric tenderness. Neurologic exam was nonfocal. Lung and cardiac exams were normal. Other labaratory test:

Urine findings: Glucose 3+, Ketone negative., Serum osmolality: >340, Serum ketone: 0.2, pH: 7.32, RBS: HI

1) Counselling points for newly diagnose DM patient?

- *Reduce sugar intake*
- *Regular balanced diet*
- *Ensure compliance to medications*
- *Maintain blood glucose level within normal range*

2) Explain on importance of adherence to medications

- *Ensures blood glucose control within normal range*
- *Prevents microcomplications (neuropathy, nephropathy and retinopathy)*
- *Prevents macrocomplications (CVD or stroke)*
- *Halt the progression of disease.*

3) Things to watch out during Masyair for DM patient?

Monitor blood glucose level regularly, comply to medications, has regular balanced diet, drink enough water, watch out for any hypoglycemia symptoms (fatigue, sweating, fainted) or hyperglycemia symptoms (polyuria, lethargic, lose body weight, thirsty).

Case 21

A 50 year old female pilgrim complains of fatigue, slight memory loss, slow speech, dry skin, constipation, and cold intolerance. Further history taking from patient, noted she had progressive weight gain of 10kg in 1 year. Physical examination: Vital signs include a temperature 36 degree celcius, pulse 58 beats/minute and BP 140/100mm/Hg. She is moderately obese and speaks slowly and has a puffy face, with pale, cool, dry, and thick skin. The thyroid gland is slightly enlarged, firm, not nodular, mobile, and not tender. The deep tendon reflex time is delayed. Laboratory studies: FBC and differential WBC are normal. The serum T4 concentration is 3.8 pmol/L, the serum TSH is 15mu/L.

1) What is the starting dose for Levothyroxine in newly diagnosed hypothyroidism?

Lower initial doses of T. Levothyroxine is 25-50mcg/dose.

2) Counselling points for Levothyroxine?

- *Levothyroxine is best taken on empty stomach (1 hour before breakfast or at bedtime, at least 3 hours after the last meal of the day) because absorption is impaired if taken with food.*
- *Compliance may be enhanced however, by instructing patients to consistently take it before breakfast each day.*
- *Advised to administer levothyroxine separate from other possible interfering medications and supplements for at least 4 hours.*

3) Sign and symptoms of hypothyroid/hyperthyroid for patient to watch out after starting Levothyroxine?

Patients to watch out of any hyperthyroid symptoms eg; fatigue but inability to sleep, greater appetite, nervousness, shakiness, feeling hot when other people are cold, and trouble exercising because of weak muscles, shortness of breath, and a racing, skipping heart.
Storage of Levothyroixne. Shouldn't be exposed to direct and extreme sunlight/heat since it is a hormone-based drug.

Case 22

A 45 years old woman pilgrim fainted in the hotel lobby after taking breakfast. She was brought to Klinik Kecemasan Janadriyah by other pilgrims after regaining consciousness. Patient appeared very tired and she reported had fevers intermittently for about a week, as well as lethargy, abdominal pain and palpitations. Her measured blood pressure was 90/60 mm/Hg and further laboratory tests revealed acute kidney injury, Potassium level exceeding 5 mmol/L, and low sodium level. Further history taking from patient, she feeling very dizzy before fainting, and the dizziness had worsened over the past three days. She also mentioned that she taking supplements for the past 2 months in preparation for hajj. The supplements were not registered and had been purchased online. Serum cortisol levels could not be measured due to laboratory reagent availability limitations, but clinically the patient is suspected to have hypoaldosteronism. Therefore, she was prescribed steroids and discharged after a week in the ward.

1) What is the counseling points for patient who was prescribed with steroid?

Importance of compliance towards the prescribed Prednisolone dose and the need to have regular follow up in Maktab for further dose optimization based on symptoms. Steroid need to be taken with empty stomach during the day and best to have the last dose of the day at 6pm. Patient also needed to be informed on the danger of resuming or taking unregistered supplements/products since it may lead to hypoaldosteronism and its complications.

2) Counsel patient for sick day rules.

- *Mild illness without fever: no change in dose.*
- *Illness with fever: If your temperature is raised, your steroid dose needs to be increased for the duration of the illness. However, if you are already on prednisolone 15mg or more there is no need to take additional steroid medication.*
- *Vomiting or diarrhoea: If you vomit once, take an extra 5mg of Prednisolone OR 20mg of Hydrocortisone by mouth.*
- *Extremely unwell: Take an extra 20mg of Prednisolone OR 50mg of Hydrocortisone and seek medical advice.*

Case 23

68 years old male. During the flight, one pilgrim experienced symptoms of mild agitation, destructive behaviour, worsening upon arrival - assist by son. His behavior escalated upon arrival and stay at Madinah. He became disinhibition (undressed - wandering at masjid nabawi, and became aggressive after being stopped by the guard. Guard and Petugas Haji brought him to PR Madinah for admission. Current medication: not on any medication. No formal diagnosis of dementia. Fit physically but unable to perform prayer properly since back then in Malaysia Admitted to PR Madinah for 7 days for stabilization before being transferred to PRTH Makkah for continuation of care. He was given PO risperdal 2mg ON and PO lorazepam 1mg ON. IV Diazepam 5mg PRN was standby in ambulance during transfer. He was accompanied by a psychiatric medical officer while in PRTH Makkah, he was admitted to psychiatric ward accompanied by his son. Medication was changed to Quetiapine 25mg BD - 75mg BD (taper up every 3 days). Then was changed to Quetiapine XR 200mg ON. He required full observation in ward for 2 weeks with his son. He was on sleep orientation for 3 weeks. He experienced short night time sleep, and awake at midnight. He was under full observation by the Medical Assistant.

1) Can benzodiazepines been given to induce sleep?

Zolpidem is better choice. Benzodiazepine is not suitable as it can distrupt REM cycle especially in elderly

2) What are the precautions during optimization of Quetiapine 400mg ON?

Orthostatic hypotension: slow dose titration and adequate hydration

Case 24

Female pilgrim, 43 years old with underlying bipolar type 1. She was not on proper follow up in Malaysia. Develop acute mania with psychosis 2 week after arrival in Makkah. Associated with auditory hallucinations and aggresion without distruptive behaviour toward roommate and husband. Old medication: Lithium 600mg BD (defaulted for 1 month prior to flight). Presented to Klinik Maktab with restraint and then was transferred to PRTH Makkah via ambulance. In ED management: IM haloperidol 2.5mg stat (4x in

total 20 minutes apart). Patient admitted to psychiatric ward for observation and started with PO epilim chrono 500mg ON x 3/7, then 1.5g ON until subsequent follow up in Klinik Maktab.

1) *Role of antipsycotic during discharge (patient still experience minor auditory hallucinations prior to discharge)*

Tab epilim chrono as antipsychotic to prevent relapse of manic (mood stabilizer) and KIV for low dose T. Risperidone 1mg ON if psychotic features are still persist while waiting for Epilim Chrono dose stabilization and steady state to be achieved.

2) *Any guideline to step up epilim chrono dosing?*

To step up by 500mg dose additional with interval of 3 days up max 2.5g/day. To monitor patient's tolerability and mania symptoms as outpatient in Maktab.

Case 25

A middle-aged lady of 47 years old, admitted to PRTH Makkah due to acute aggression towards her husband and roommates. She has been diagnosed with MDD with borderline schizoaffective disorder, which was characterized as well controlled with T. Escitalopram 5mg ON, T. Risperidone 2.5mg ON and T. Lorazepam 1mg ON/ PRN in Tanah Air. She was given IM Midazolam 2mg STAT and IM Haloperidol 5mg STAT in ambulance. Upon further investigation, patient claimed that she is stressed out for not being able to achieve her targeted umrah and other supplication activities compared to other pilgrimage. Because of this she has been indulged in self blame for being weak. She was then diagnosed as having relapse MDD with anxiety symptoms. T. Escitalopram was increased to 10mg ON and T. Risperidone was increased to 5mg ON. She was warded in PSY wing for further counselling on self acceptance and symptoms monitoring.

1) *Indication of T. Risperidone dose optimization since patient denied presence of hallucination?*

T. Risperidone continuity is required for mood stabilizer on top of treatment for schizoaffective disorder

2) *Monitoring parameters for Escitalopram and Risperidone*

- *Escitalopram: serotonin syndrome especially if combined with regular dose tramadol, hyponatremia and parkinsonism*
- *Risperidone: QT Interval, EPS, hypotension*

Case 26

Mr A has underlying DM, HTN and plaque psoriasis, admitted for pneumonia. Leflunomide withheld due to worsening in infective progression (neutropenic sepsis). Treated with IV

Augmentin 1.2g TDS for 1/52 and Leflunomide was continued to be withhled. Noted that new plaque psoriasis started to appear around patient's scalp and neck.

1) *What is the choice of DMARD reinitiation, when to restart therapy and what is the step for treatment reinitiation?*

T. Prednisolone 30mg OD may be initiated while patient is still having acute and ongoing infection. The dose may be taper up to a maximum of 1mg/kg/day depending on psoriatic flare severity. But since this patient is not in acute flare and still having ongoing infection, a lower dose may be initiated first and KIV for optimization or titration based psoriasis improvement. Methotrexate is not suitable due to its potent immunosuppressive effects that are similar to leflunamide. T. Leflunomide can be restarted once symptoms resolved/slightly improving.

2) *Types of topical steroid that can be applied based on the affected area.*

- *For scalp, suggest to use Coal tar Shampoo, Salicylic acid 2% cream. Betamethasone0.1% cream/ointment maybe used for treating inflammed psoriatic plaque on scalp.*
- *Facial areas, ears, neck and genitalia (avoid mucosal area) required less potent topical steroid, so hydrocortisone 1% or clobetasone 0.05% cream may be used.*
- *Trunk and limbs have thicker skin layer and Betamethasone/Beclamethasone may be used.*
- *Counsel patient to apply only thin layers to avoid thinning of the skin*

Case 27

Miss J has an underlying childhood, progressed to adult eczema, developed acute eczema flare in Makkah due to weather changes and worsening in dry skin. History of poor compliance to topical emolients regiment, especially upon her arrival in Saudi. The eczema worsened with cellulitis over the generalized area (trunk, neck and all limbs), complicated with skin break and thus, patient was treated with T. Unasyn 375mg BD x 14/7.

1) *To discuss types of topical preparations/ emolients suitable to be started for generalized eczema*

- *Emmolients to hydrate the skin and prevent eczema flare: aqueous cream, vaseline (white/yellow paraffin), glycerin in aqueous cream and Ung Emollient. Since patient has poor compliance for frequent application, oil based emolient such as Ung Emollient is preffered for long lasting emmolient effects and lesser repeated application is required.*
- *Aqueous cream can be used as soap replacement to reduce shower gel induced eczema/irritation.*

- *Topical preparation such as steroid based cream and ointments will also required if eczema persists with inflammation. Topical steroid choices depend on the affected area and not to be apply on area with wound. Topical antibiotic may be prescribed in those with skin laceration such as neomycin.*

2) Roles and choices of steroids during her eczema flare

Roles & choices of steroids: antiinflammatory & antipruritic. Choice of steroids depend on affected site:

- *Betamethasone 0.1% cream/ointment maybe used for treating inflammed psoriatic plaque on scalp.*
- *Facial areas, ears, neck and genitalia (avoid mucosal area) required less potent topical steroid, so hydrocortisone 1% or clobetasone 0.05% cream may be used.*
- *Trunk and limbs have thicker skin layer and Betamethasone/Beclamethasone may be used.*
- *Counsel patient to apply only thin layers to avoid thinning of the skin*

Case 28

Ms. T, an 18-year-old lady came to TH clinic with heavy menstrual bleeding lasting 12-15 days interfering with her hajj/umrah activities. Menstrual history showed she had this problem since her first period at 12. Never been on any hormonal medications. She has history of excessive bleeding during dental scaling and few occasions of epistaxis, and both conditions resolved spontaneously. She is not sexually active. There was mild pallor and pelvic ultrasonography was unremarkable. Her vital signs were normal.

1) Assessment required prior treatment initiation

FBC to check for signs of anemia, thrombocytopenia or thyroid disease. Other test such us pap smear and cervical culture (if available), assess risk of hyperplasia

2) Proposed stepwise/ combined treatment for her menorrhagia?

C. Tranexamic acid 500mg-1500mg TDS for max 7 days during each menstrual cycle. If the patient is not at risk of gastric ulcer, short term use of C. Mefenamic acid 500-1000mg TDS-QID for 7 days may also be combined with Tranexamic acid. Hormonal agents may be considered in cases that showed inadequate response with the first 2 agents.

- *Monitoring of her symptoms improvement/treatment side effects*
- *Counselling on method to assess bleeding cycles and trend during treatment to define the need for combination therapy.*
- *Identification of triggers resulting to persistent menorrhagia despite of therapy*
- *Monitoring of bleeding symptoms/side effects if chronic treatment (longer than 7 days per cycle) is required--> potential blood clot, gastritis with high dose NSAIDs.*

- *For patient to seek clinician's expert view in case issues did not resolved/ improved despite on adequate treatment--> for referral to KSA*

Case 29

Ms. Z, a 41-year-old lady came to TH clinic with a complaint of breakthrough bleeding. She was just started on T. Marvelon 1/1 OD since 3 weeks ago for menstrual suppression intended for hajj season. Due to the recently occurred but increasing in the volume of spotting since 5 days ago, she decided to abruptly terminate the COCP on the day of her visit to the clinic. She has underlying well controlled DM and HTN. She intended to get a new set of treatment for menstrual suppression prior to the peak hajj season in the next 2 weeks time.

1) Assessment and counselling points for her current method of administration

Counselling on method of therapy administration--> continuous intake within intended duration until Hajj week passed.

- *To check on DDI that may cause treatment failure especially when combined with drugs/supplement that act as inducers.*
- *Assessed her administration timing and missed dose window with Marvelon (COCP).*
- *Counsel patient on alerting Maktab/health care professionals on the current OCP intake to avoid interacting drugs. Since she is more than 40 years old with HTN, need to watch out on her BP and potential VTE symptoms while on therapy.*

2) Plan for her new regiment for menstrual suppression

If she insist to switch therapy, may consider short acting POP with norethisterone 5-10mg TDS 3 days before menstruation up to 14 days. But patient needed to be reminded that POP is more time sensitive and she must be very compliant with turn around dosing for fear of treatment failure. Delay in consuming the dose by 3 hours will lead to potential bleeding.

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