Standard Operating Procedures

For Medical Assistants in Primary Health Care

Part 3

Family Health Development Division
Ministry of Health
2009





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STANDARD OPERATING PROCEDURES FOR MEDICAL ASSISTANTS IN PRIMARY HEALTH CARE PART 3

Katalog Penerbitan Perpustakaan Negara Malaysia
ISBN

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FOREWORD

Health care services in Malaysia have expanded rapidly and Assistant Medical Officers in the Ministry of Health have consistently played a significant role in the promotion of Health For All, especially in rural areas, through their contribution in the delivery of primary health care services. Effective primary health care delivery is of vital importance in the early detection, prevention of illness and promotion of health. It will also contribute towards the reduction in the number of cases that require secondary health care, thus reducing the burden of disease in the country.

Standard Operating Procedures serve as guides to meet the standard of care and professionalism set out by the Ministry of Health, Malaysia. It also serves to enhance public awareness of such standards expected from health care providers in the community. Such awareness will hopefully encourage greater compliance to these guidelines by Assistant Medical Officers. It is in their best interest that they adhere, at all times, to the series of practice guidelines that have been prepared by the Ministry of Health.

The Ministry of Health has always stressed the importance of effective supervision of their peers by senior Assistant Medical Officers, under the guidance of Medical Officers. The preparation of Standard Operating Procedures and other guidelines are efforts aimed at improving knowledge for quality patient care. I hope that these guidelines will be useful references for Assistant Medical Officers at all levels of care. I would urge Medical Officers and senior Assistant Medical Officers to carry out regular supervision in Health Clinics and use these guidelines as a tool in their clinical audit to ensure that a high standard of patient care is maintained at all times.

I am confident this edition of Standard Operating Procedures For Medical Assistants In Primary Health Care will be well received and updates will be embarked upon, with new topics introduced in future editions.

May I congratulate all Medical Officers and Assistant Medical Officers for their effort and commitment in the successful preparation of Standard Operating Procedures For Medical Assistants In Primary Health Care Part 3, which is indeed a commendable accomplishment.

Tan Sri Dato' Seri Dr. Hj. Mohd Ismail Merican
Director General of Health,
Ministry of Health Malaysia

FOREWORD

It is crucial that the Public Health agenda is addressed appropriately to ensure that the 8 Health Goals are achieved by 2020 so that Malaysia shall have a more enhanced healthy population by then. Economic growth for the nation is dependent on a healthy and productive population.

Assistant Medical Officers, previously known as Medical Assistants, are one group of the essential health care providers in the Public Health Program, contributing towards the delivery of an effective primary health care service for the community. Through their holistic approach in health promotion, disease prevention, curative and rehabilitative management, the Assistant Medical Officers have made tremendous contribution in primary health care, especially for the rural population. To ensure this, the Assistant Medical Officers should update their knowledge and skills in recent advances in clinical management. However, the focus should be on the adherence to the set clinical standards in their daily management of patients in Health Clinics.

Standard Operating Procedures For Medical Assistants In Primary Health Care Part 3, is essentially a guide to steer the Assistant Medical Officers in carrying out their professional duties as health care providers. It acts as a handy and concise reference tool in an emergency, where fast and accurate clinical decision needs to be made to save a life and prevent complications. However, Standard Operating Procedures require revision from time to time, so that the contents are updated with advances in current medical knowledge. I sincerely hope that this book will be available at all health clinics for reference.

May I congratulate the Family Health Development Division, Ministry of Health, for their effort and commitment, and all the contributing Medical Officers and Assistant Medical Officers involved in the successful preparation of Standard Operating Procedures For Medical Assistants In Primary Health Care Part 3.

Dato' Dr. Hj. Ramlee bin Hj Rahmat
Deputy Director General of Health,
Ministry of Health Malaysia

PREFACE

Standard Operating Procedures for Medical Assistants was first developed and published in the year 2001 by the Family Health Development Division, Ministry of Health, Malaysia. Due to the good response, this was followed by Part 2 in 2003.

This book (Part 3), containing 24 Standard Operating Procedures for Medical Assistants, is an appropriate and necessary follow up to Part 1 and Part 2 which documented 33 and 20 Standard Operating Procedures, respectively. The Assistant Medical Officers are to be commended on this excellent effort; and indeed these Standard Operating Procedures have provided the impetus and encouragement for the development of Standard Operating Preocedures, in other programs as well, in the Ministry of Health.

A new feature of this book is the inclusion of a glossary for abbreviations and technical terms. An additional feature is the inclusion of differential diagnosis where relevant and the grouping of Standard Operating Procedures according to the various conditions. In this book, advice on health education is also more comprehensive.

It is evident that Part 1 and Part 2 are being used optimally by Assistant Medical Officers throughout the country, and I have no doubt that Part 3 will be used with the same degree of enthusiasm. By their very nature, procedures in medical care undergo constant change. Therefore, these documents will be updated accordingly, both in content and presentation, to keep it current.

The Family Health Development Programme is greatly encouraged by requests for these documents made by health authorities of agencies outside the Ministry of Health, such as the Malaysian Armed Forces, Petronas and Estate Hospital Assistants. This portrays a dual positive feature – firstly that health care providers in all agencies consider quality and standards important, and secondly, that the Ministry of Health is leading the way in providing these quality and standards.

This is a positive portrayal of the Ministry of Health's leadership role in providing quality standards and it is emphasized that, health care providers, irrespective of where they work, should place importance on upgrading standards.

I would like to thank, those who have contributed to this document, the drafting team and the reviewers consisting of Medical Officers and Assistant Medical Officers. I would also like to thank the Technical Committee of Medical Assistants (Public Health) who have worked alongside the drafting team and reviewers in making this document a reality.

Dr Hajah Safurah Binti Haji Jaafar
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Foreign Body In The Ear

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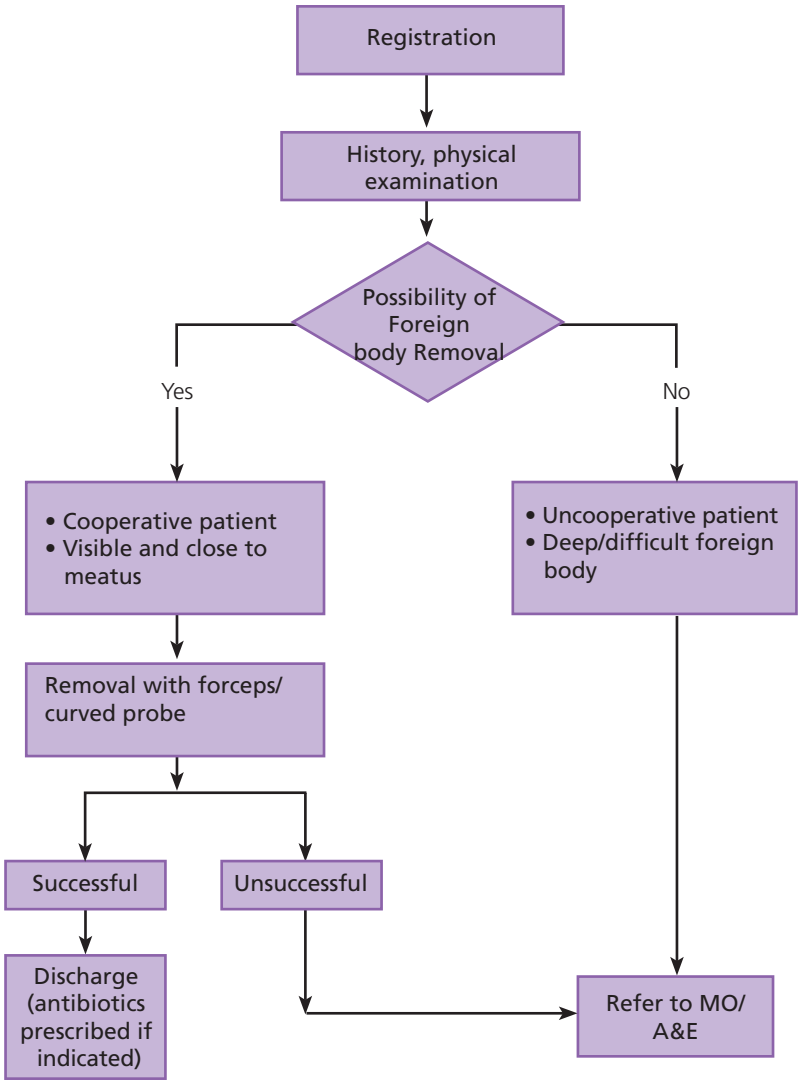
1. MANAGEMENT OF FOREIGN BODY IN THE EAR



WORK PROCESS	STANDARD	REQUIREMENT
1. Registration	• All patients should be registered in a standard registration book	• Aqua eardrops or olive oil • Syringe with warm water • Suction Machine
2. History Taking	2.1. Present complaint • Which ear? • Type of foreign body • Duration? • Any pain? • Any discharge? 2.2. Past medical history • Similar history as before • Any ear discharge before (TRO perforated tympanic membrane)	
3. Physical Examination	3.1. Examine both ears preferably examining the normal ears first before seeing the affected one. • FB • External auditory canal • Any discharge ◆ Bloody ◆ Pussy • Impacted wax • Tympanic membrane	
4. Differential Diagnosis	• Impacted wax • Otitis externa • Furunculosis • Trauma • Herpes zoster (Ramsay Hunt syndrome)	
5. Investigation	Seldom necessary but if there is purulent discharge, then Pus Swab for culture and sensitivity maybe necessary.	
6. Management	All cases shall be referred to MO except for those fulfilling criteria below where the removal of FB could be attempted : • Cooperative patient • FB visible and close to meatus • Foreign bodies are frequently inserted into the ear canal. • They can usually be syringed out or lifted with thin forceps.	

WORK PROCESS	STANDARD	REQUIREMENT
	• Various improvised methods can be used to remove foreign bodies (FB) in co-operative children. **Insects in the ear** • Live insects should be immobilized by first instilling Aqua drops or olive oil, and then syringing with warm water • Dead flies that have been attracted to pus are best removed by suction.	• Aqua eardrops or olive oil • Syringe with warm water • Suction Machine
7. Health Education	Small gadgets especially from toys that are able to be put into the ears are to be prohibited for the child to play with.	
8. Referral	• If simple methods such as syringing fail to dislodge the FB it is important to refer for examination and removal under microscope (ENT referral). • Syringing should not be done if there is a possibility of the FB perforating the tympanic membrane • Syringing should be avoided if there is a history of perforated tympanic membrane	

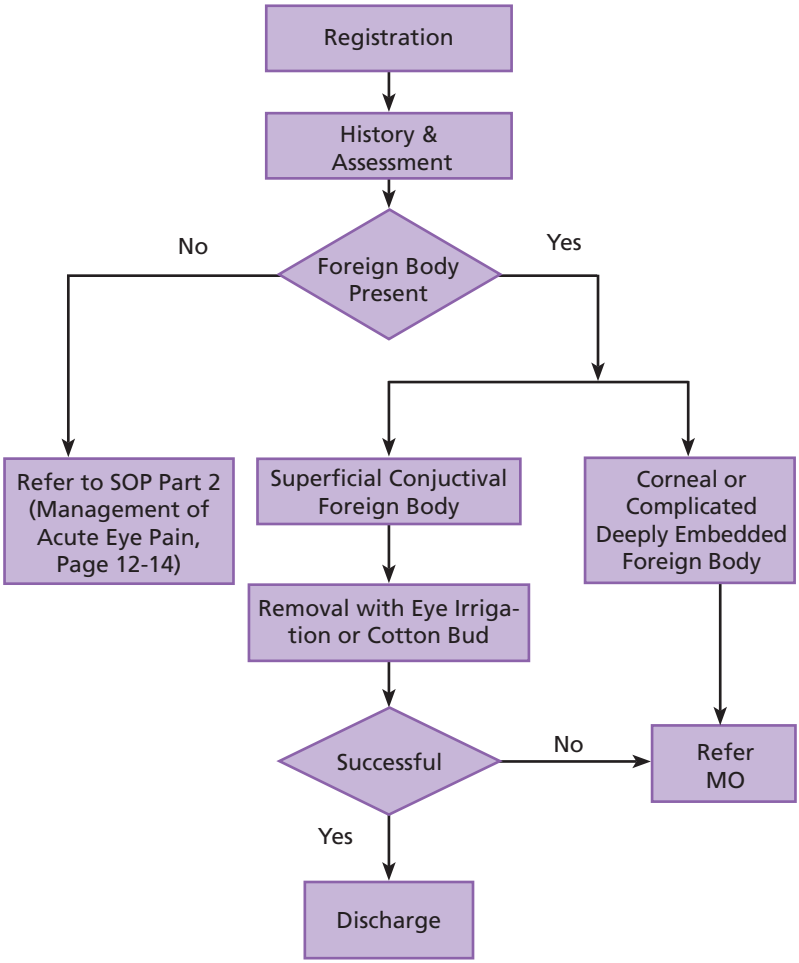
References:

General Practice, second edition. By: John Murtagh

Foreign Body In The Eye

2

2. MANAGEMENT OF FOREIGN BODY IN THE EYE



IF THERE IS A **VERY CLEAR HISTORY** OF FOREIGN BODY ENTERING THE EYE BUT THERE IS **NO FOREIGN BODY VISUALISED**, PATIENT SHOULD STILL BE REFERED TO MEDICAL OFFICER, **ESPESCIALLY IF** THE FOREIGN BODY ENTERED BY **HIGH VELOCITY SPEED** EG. PATIENT WAS HAMMERING, CHISSELING OR CUTTING GRASS. (This is because the foreign body could have entered the eye without any trace externally).

WORK PROCESS	STANDARD	REQUIREMENT
1. Registration	• All patients seen should be registered in the standard registration book.	**Equipment** • Registration book PER-PL 102 • Bright torchlight • Fluorescein stain • Eye irrigation set • Diagnostic set (Fundoscopy) **Medication** • Topical anaesthetic eye drops • Chloramphenicol eye ointment and eye pad (in cases of superficial corneal abrasions)
2. History Taking	2.1. Time, place, how it occurred and nature of foreign body 2.2. Eye pain, photophobia, excessive tearing and purulent discharge 2.3. Foreign body sensation in eye 2.4. Normal/decreased visual acuity 2.5. History of contact lens use	
3. Physical Examination	3.1. Visual acuity 3.2. Conjunctival redness 3.3. Evert each eyelid & inspect entire conjunctiva and cornea for visible foreign body. 3.4. Epithelial defect (stains with fluorescein) 3.5. Pupillary shape and responses **Note: Topical anaesthetic eye drops may be applied to assist assessment**	
4. Differential Diagnosis	4.1. Corneal abrasion 4.2. Keratitis (bacterial/fungal) 4.3. Conjunctivitis	
5. Management	**5.1. Treatment: superficial** conjunctival foreign body • Conjunctival foreign body may be removed by eye irrigation. **5.2. Treatment: corneal foreign body** • **Chloramphenicol or Gentamicin eye drops should be given in all cases after removal of the foreign body.** • DO NOT ATTEMPT REMOVAL WITH COTTON BUD OR STERILE NEEDLE • Refer to MO for further management	

WORK PROCESS	STANDARD	REQUIREMENT
	• For superficial foreign body with presence of superficial corneal abrasion (fluorescein staining positive) - Consult MO in view of Chloramphenicol eye ointment and eye pad for 24 hours. Review patient the following day. If the corneal abrasion persists the following day, consult MO	**Equipment** • Registration book PER-PL 102 • Bright torchlight • Fluorescein stain • Eye irrigation set • Diagnostic set (Fundoscopy) **Medication** • Topical anaesthetic eye drops • Chloramphenicol eye ointment and eye pad (in cases of superficial corneal abrasions)
6. Health Education	Advice especially for those in high-risk situation / work (eg: grass-cutter, welder). • Please wear your goggles at work. • Goggles protect your eyes from foreign bodies and injuries. • Some eye injuries can even lead to blindness.	
7. Referral	7.1. Agitated and uncooperative patient 7.2. Deeply embedded foreign body 7.3. Corneal FB with or without abrasion/epithelial defect /ulcer 7.4. Corneal opacity 7.5. Hyphema (blood in the anterior chamber) 7.6. Severe eye-lid oedema with suspicion of penetrative eye injury 7.7. Diffuse subconjunctival haemorrhage 7.8. Pupillary abnormalities 7.9. Suspected penetration of foreign body into cornea/sclera 7.10. Sudden reduction of visual acuity *Note: Eye-pad may be applied before patient referral (infection need to be ruled out first).*	

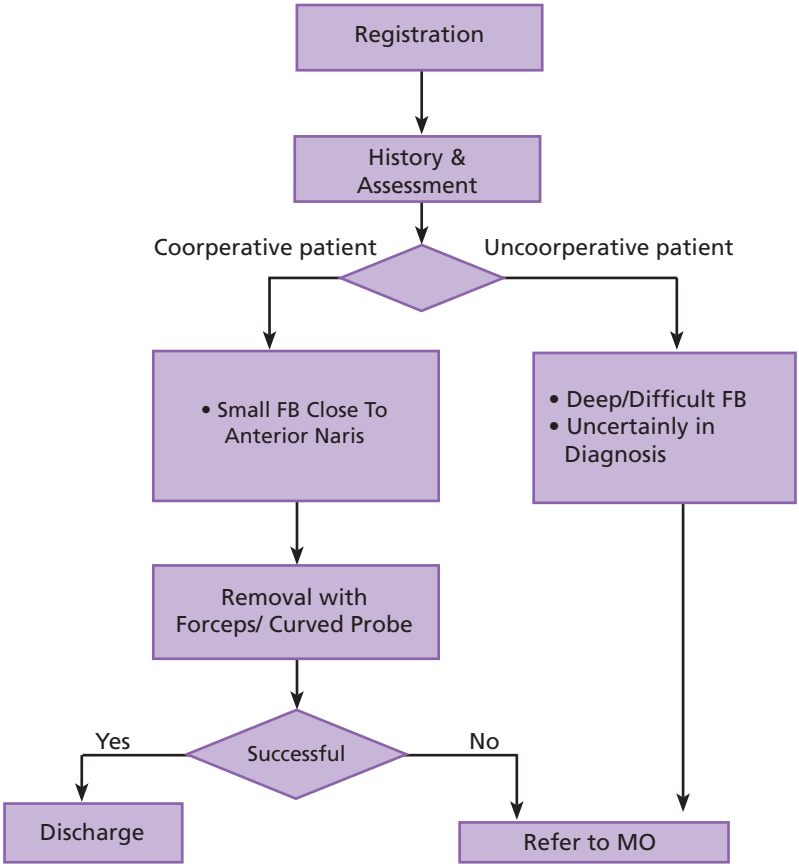
References:

1. Bashar M, Corneal Foreign Body; eMedicine
2. Merck Manual Professional
3. Manual Penjagaan Mata Untuk Anggota Kesihatan Paramedik terbitan KKM 2000, mukasurat 41 dan 42

Foreign Body (FB) In The Nose

3

3. MANAGEMENT OF FOREIGN BODY (FB) IN THE NOSE



WORK PROCESS	STANDARD	REQUIREMENT
1. Registration	1.1. All patients seen should be registered in the standard registration book.	**Equipment** • Registration book PER-PL 102 • Lamp & head mirror or bright torchlight • Nasal speculum • Nasal forceps (bayonet or alligator forceps) **Medication** • Antibiotics if indicated
2. History Taking	2.1. Another person's observation of the object being inserted into the nose. 2.2. Nature of object 2.3. Time of insertion 2.4. Unilateral foul-smelling, bloody, purulent nasal discharge Nasal block	
3. Physical Examination	3.1. General condition: cooperative / agitated 3.2. Excoriation around nostril may be present. 3.3. Visualization of foreign body with nasal speculum.	
4. Consider Differential Diagnosis	4.1. Sinusitis 4.2. Nasal polyps 4.3. Tumor	
5. Investigations	5.1. X-ray in suspected metallic FB	
6. Management	6.1. Reassure & ensure patient is cooperative. 6.2. Ensure FB is small & close to the anterior naris 6.3. Using a hooked probe or small nasal forceps (bayonet or alligator forceps), reach behind object and gently pull it forward. 6.4. Patient should be in sitting position throughout procedure	
7. Health Education	Advice: • Be careful with small play objects. • Children may insert them accidentally into the nose or other orifices while playing. • Please be there or have someone to supervise while they are playing with such objects.	

WORK PROCESS	STANDARD	REQUIREMENT
	• Choose play items carefully for your children. Certain play items may be dangerous to your children.	**Equipment** • Registration book PER-PL 102 • Lamp & head mirror or bright torchlight • Nasal speculum • Nasal forceps (bayonet or alligator forceps) **Medication** • Antibiotics if indicated
8. Referral	8.1 Agitated /uncooperative children who may require GA 8.2 Deeply situated foreign body 8.3 Large, smooth & rounded foreign body, which tends to be more difficult to grasp & often are pushed further into the naris with forceps 8.4 Unsuccessful foreign body removal 8.5 Uncertainty in diagnosis	

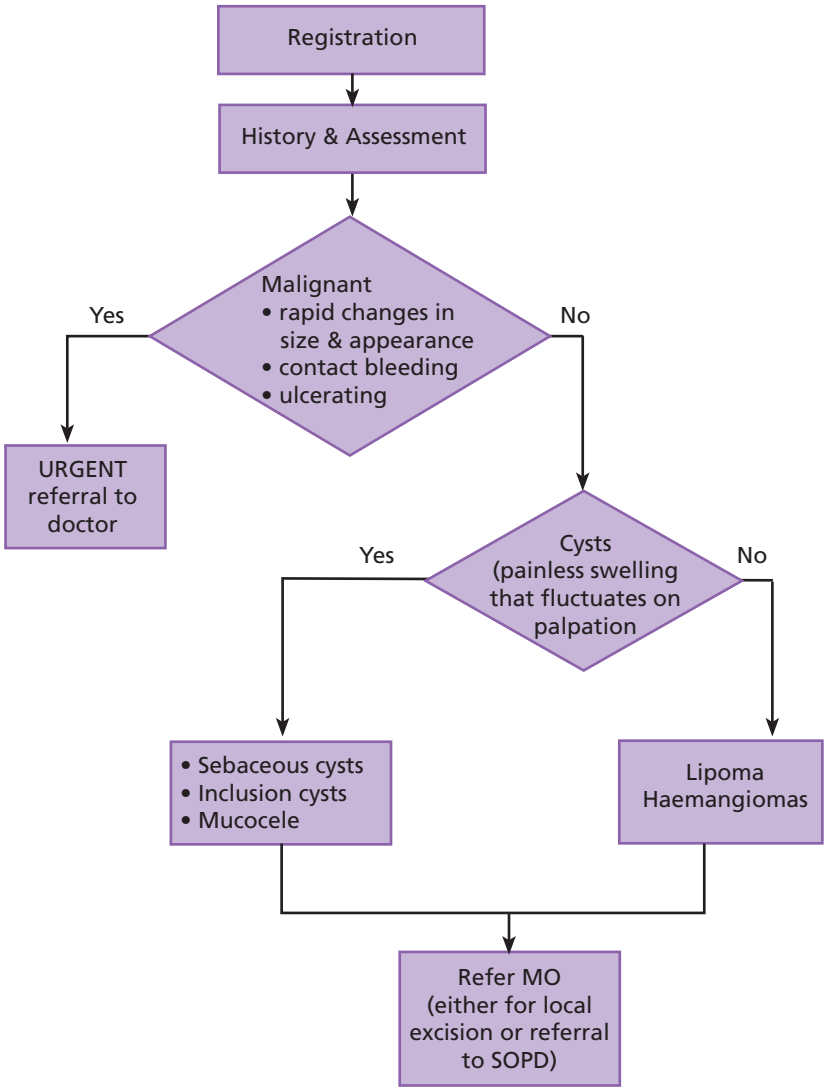
References:

1. Cox RJ, Foreign Bodies, Nose; eMedicine
2. Bull PD, Lecture Notes on Diseases of the Ear, Nose and Throat. Blackwell Scientific Publications, 7th edition.
3. Merck Manual Professional

Skin Lumps

4

4. MANAGEMENT OF SKIN LUMPS



WORK PROCESS	STANDARD	REQUIREMENT
1. Registration	• All patients seen to be registered in the standard registration book.	**Equipment** • Registration book PER-PL 102 • Lamp • Scapel blade and handle • T & S set • Dressing set • Surgical scissors • Dressing towel • Disposable needle and syringes • Sterile gauze and cotton • Bandage • Sutures • Plaster • Gloves • Facial mask **Medication** • Lignocaine • Analgesic • Topical and oral antibiotic
2. History Taking	• Changes in size and character of swelling • Painful or painless • Post trauma (implantation cyst)	
3. Physical Examination	**Sebaceous Cyst** • Firm to soft regular lump • Fixed to skin but not to other structure • At the scalp, face, trunk • Central punctum may be present • Contains sebaceous material **Implantation cyst** • On finger following puncture wound • Contains mucous **Mucocele** • Retention cyst • Contains mucous • Lip and buccal mucosal	
4. Differential Diagnosis	**Lipoma** • Soft and may be fluctuant • Well defined • Lobulated • Rubbery consistency • Painless • Common on limbs and trunk **Haemangiomas** • Benign skin lesion • Dense elevated masses of dilated blood vessels	
5. Management	1. No treatment if lump is small 2. Excision	
6. Referral	All cases should be referred to MO.	

References:

1. General Practice John Murtagh
2. Clinical dermatology 4th edition Rona M.Mackie

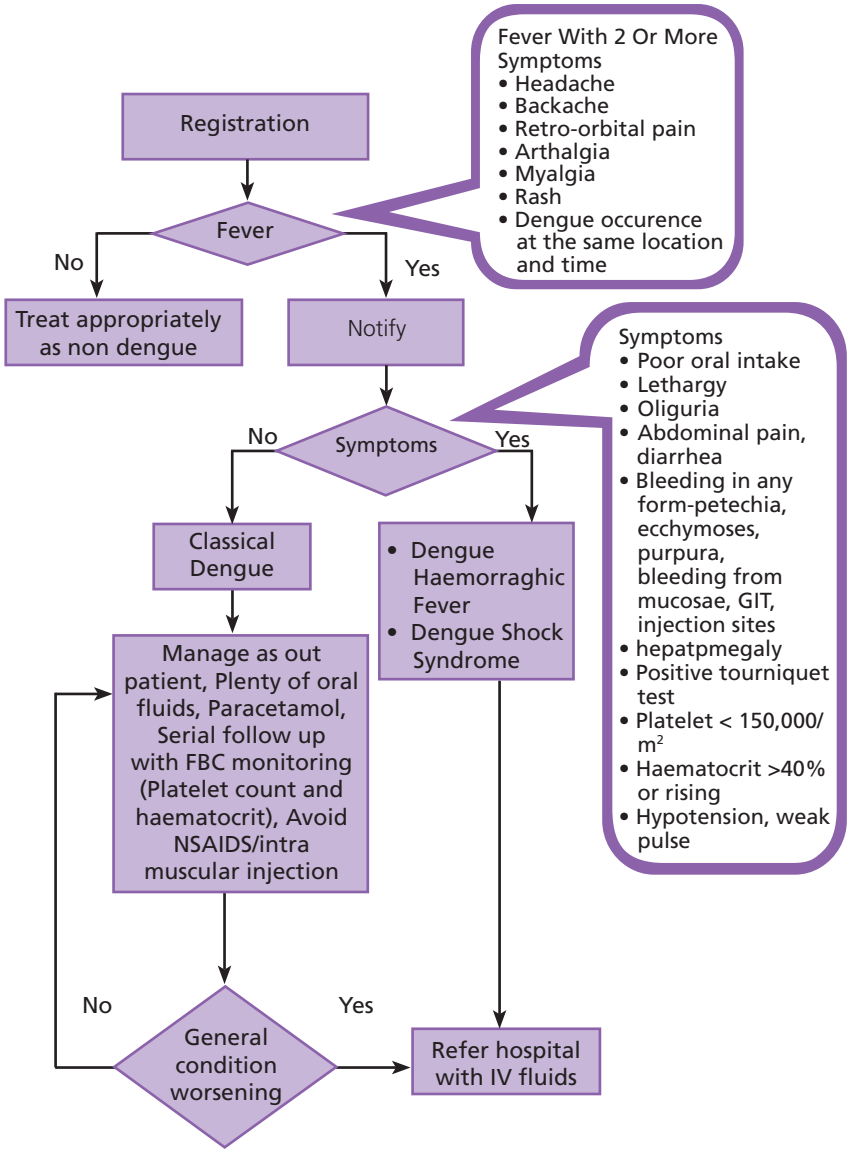




Dengue Fever

5

5. MANAGEMENT OF DENGUE FEVER



WORK PROCESS	STANDARD	REQUIREMENT
1. Registration	All cases to be registered in the standard registration book	Registration book Thermometer BP set Stethoscope Medication: Paracetamol IV Normal Saline
2. History Taking	2.1. High continuous fever of 3 days or more 2.2. Headache, backache, retro orbital pain, athralgia, myalgia and rash	
3. Physical Examination	3.1. Flushing, maculopapular/ confluent rash with small island of normal skin 3.2. Positive Hess test, petechial haemorrhage 3.3. Pulse pressure < 20 mmHg 3.4. Rapid and weak pulse 3.5. Hypotension 3.6. Cold clammy skin 3.7. Sign of plasma leakage-pleural effusion 3.8. Hepatomegaly, ascites	
4. Differential Diagnosis	4.1. TRO other causes of viral fever 4.2. TRO other haematological disorders 4.3. Septicaemia	
5. Investigations	5.1. Dengue serology 5.2. FBC	
6. Management	6.1. Treat as outpatient if vital signs are stable (platelet count >100,000/mm³ and haematocrit < 40%) 6.2. Plenty of oral fluids 6.3. Paracetamol 6.4. Serial follow up with FBC monitoring (platelet count and haematocrit) 6.5. Avoid NSAIDS 6.6. Avoid intra muscular injection	

WORK PROCESS	STANDARD	REQUIREMENT
7. Health Education	7.1. Take plenty of fluids 7.2. Remove mosquitoes prone breeding containers 7.3. Keep housing environment clean 7.4. Use abate with large stagnant water containers to kill the mosquito larvae 7.5. Dengue is an infectious disease and people have died because of dengue 7.6. Other family members and surrounding neighbours can get dengue 7.7. Bring those that have similar symptoms to the nearest clinic to check for dengue. 7.8. Come immediately with any presence of fever, rash and bleeding. 7.9. Allow health personnel to fog the area. Give your cooperation when fogging is done.	Registration book Thermometer BP set Stethoscope Medication: Paracetamol IV Normal Saline
8. Referral	8.1. Poor oral intake 8.2. Lethargy 8.3. Oliguria 8.4. Abdominal pain, diarrhoea, bleeding in any form 8.5. Platelet < 100,000/mm^3 8.6. Haematocrit > 40% or rising 8.7 Hypotension and weak pulse	

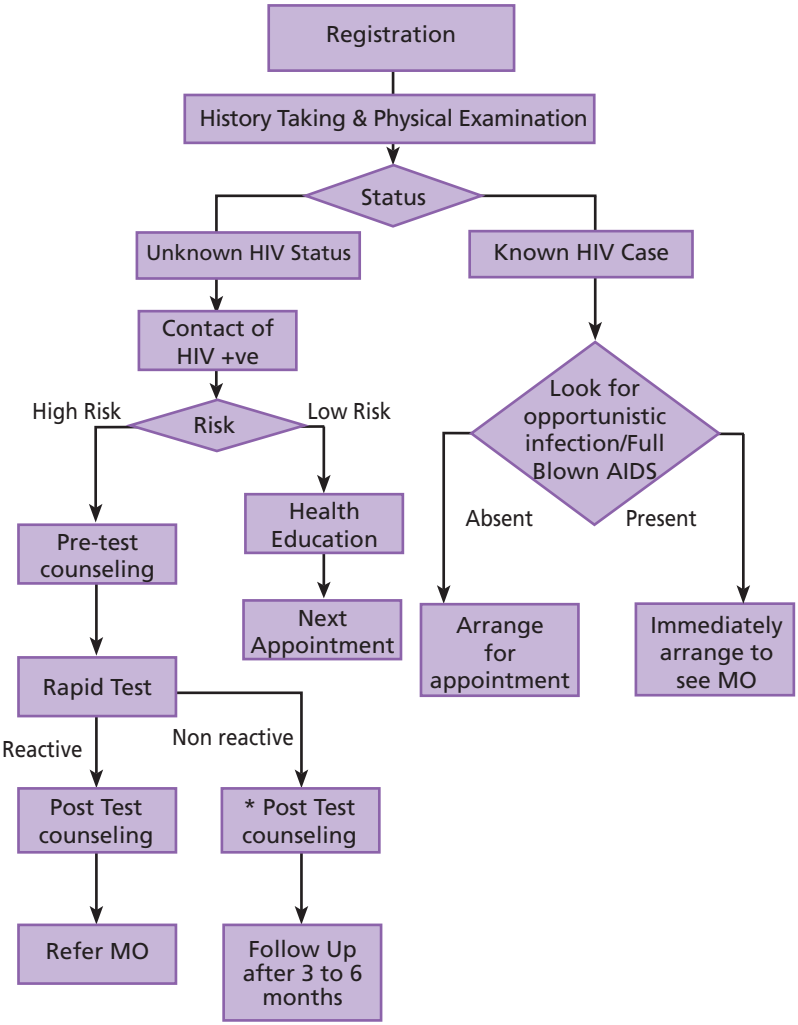
References:

Clinical Practice Guideline - Dengue Infection In Adults,
Dengue Consensus 2003, Academy Of Medicine Malaysia, Ministry of Health

HIV/AIDS In Adult

6

6. MANAGEMENT OF HIV/AIDS IN ADULT



Inform and explain to your client about his/her HIV Status

* For interpretation of the test outcome / behavior change / next course of action

WORK PROCESS	STANDARD	REQUIREMENT
1. Registration	• All patients seen should be registered in the standard registration book	**Equipment:** • Weighing scale • BP set • Thermometer • HIV rapid test kit • VE set • Pap smear kit **Universal precautions should be applied at all times**
2. History Taking	**Present History:** 2.1. Assess risk factors: • Intravenous drug user • Sharing Needles • Partner / contact with HIV+ve • Unsafe sex / multipartners • Child born to HIV+ve mother • Patient with STI • TB patients 2.2. Others • Previous HIV result • Current health status • Diarrhoea • Lost of weight • Skin infection / skin rashes • Prolonged fever > 2 weeks • Prolonged cough > 2 weeks • Loss of appetite • Any lymph node swelling	
3. Physical Examination	**COMPREHENSIVE PHYSICAL EXAMINATION IS NEEDED TO IDENTIFY** • Clinical status of patient • Complication of HIV infection includes Opportunistic Infection • Side effect of treatment **3.1. General** • Height, weight, temperature, BP and pulse **3.2. Skin:** • Nodule, scabies, herpes zoster, rashes and others **3.3. Lymph node:** • Both localized and generalized **3.4. Oral cavity:** • Candidiasis, ulcer, hairy leucoplakia and others **3.5. Respiratory:** • Normal/abnormal. Look for signs of PTB and PCP	

WORK PROCESS	STANDARD	REQUIREMENT
	3.6. Mental status: • Cognitive functions, General alertness 3.7. Urogenital: • Ask for any genital ulcer / vaginal and per urethral discharge. **HIV RELATED ILLNESS :** **i. Skin disease** • seborrhoeic dermatitis, folliculitis, scabies, allergic rashes, cutaneous fungal infection **ii. Oral disease** • oral thrush, gingivitis and apthous ulcer **iii. Gastro intestinal** • diarrhea and dysphagia **iv. Respiratory disease** • URTI, PTB and PCP **v. Haematology disorder** • lymphoma and anemia **vi. CNS** • cryptococcus, toxoplasmosis and tuberculoma	
4. Differential Diagnosis	**Other Opportunistic Infection eg:** • TB • Cancer • Immuno suppression diseases	
5. Investigation	**5.1. HIV Examination For High Risk Group** • Rapid-Test / ELISA / PA test • Second sample for verification **5.2. For Confirmed HIV Patient** **<u>First Visit</u>** • FBC • ESR • Liver Function Test • Renal profile • VDRL/TPHA • HBsAg, Hep C Ag • CD4/CD8 • Chest X-ray • Toxoplasmosis IgG • PAP smear	**Inform and explain to your clients about his/her HIV Status** **Notification**

WORK PROCESS	STANDARD	REQUIREMENT
	Follow-up • FBC • ESR • LFT • Renal profile • CD4/CD8 - if CD4 < 350 need to repeat 3 - 4 month interval. - if CD4 > 350 need to repeat 6 monthly	
6. Management	**6.1. Treatment and follow up depend on facilities available includes:** • Supportive / regular counseling • HIV related illness • Anti- retroviral-HAART • Prophylaxis for PCP / TB when CD4 count < 200 - Tab. Bactrim 960 daily • Monitoring ARV treatment - Assessment clinical status - Lab test - CD4/CD8 - HIV viral load **6.2. Treatment and follow up depend on specialist team and facilities available, which includes:-** • Spouse or contact given appointment for counseling, HIV testing and supportive counseling	
7. Health Education	7.1. On high risk behavior **Harm Reduction Approach:** - Safe sex (condom use) - Methadone Maintenance Therapy (MMT) - Needle Syringe Exchange Program 7.2. Communication on risk minimization 7.3 HAART Treatment adherence 7.4. Maintaining good health status 7.5. Counseling 7.6. Psychosocial support	**Availability of condom** **Availability of trained counselor** **Accessibility to** • **Harm Reduction services (MMT & NSEP)** • **ARV Treatment**

WORK PROCESS	STANDARD	REQUIREMENT
	7.7. Distribution of related educational / info materials	**Availability of Hospital/ Health Clinic/ Government Agency/NGO networking**
8. Referral	8.1. Patients with Opportunistic Infection that need admission or to see Medical Officer 8.2. Side effect from treatment HAART 8.3. Failure of treatment 8.4. Pregnant mothers with HIV infection 8.5. Paediatric age group 8.6. Preventive intervention: referral to MMT / NSEP services 8.7. Psycho-social services etc. **NOTE:** • **MAINTAIN CONFIDENTIALITY AT ALL TIMES** • **EMPHASISE ON CLIENT FRIENDLY SERVICES**	

References:

1. Manual Pengurusan HIV Di Peringkat Penjagaan Kesihatan Primer, Cawangan AIDS/ STD, KKM
2. Plan of action for the prevention and control of HIV infection (AIDS/STD) Section, Disease Control Division of Public Health, MOH
3. A guide to Primary care of people with HIV/AIDS
4. Management of HIV/AIDS in Woman
5. Guidelines For Nursing Management Of People Infected With HIV/AIDS, Published by the Ministry of Health Malaysia

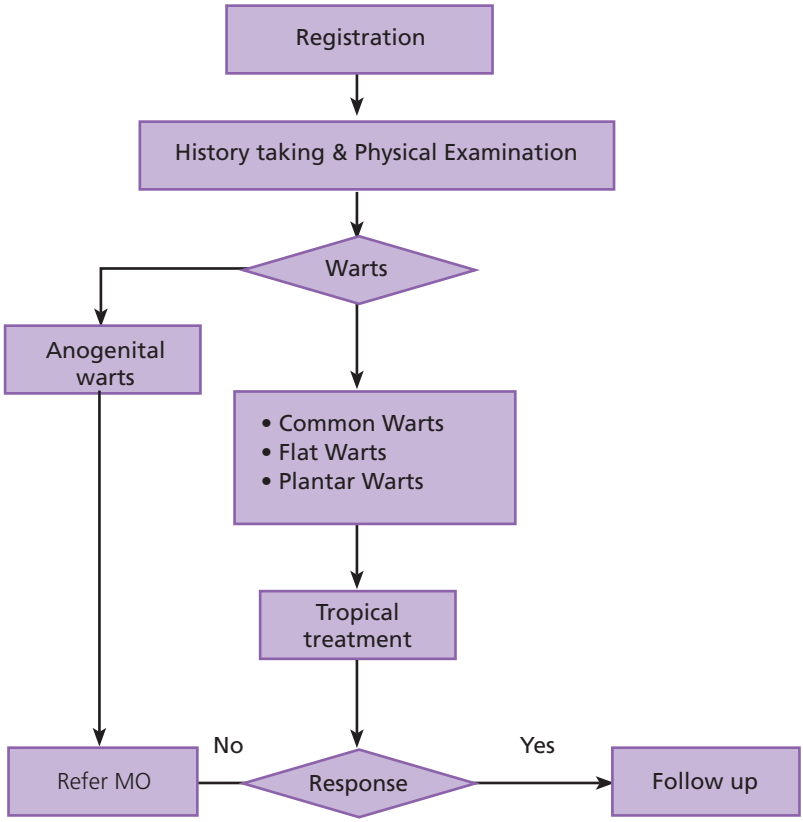
Warts

7

7. MANAGEMENT OF WARTS

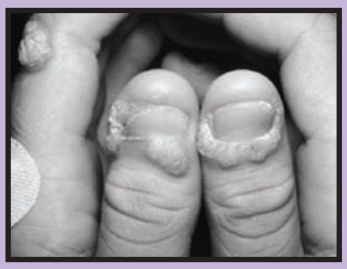
Definition of Warts : Benign proliferation of skin and mucosa caused by Human Papiloma Virus

- Most commonly in children and young adult
- Transmitted by direct skin contact or autoinoculation
- Incubation period 2 - 6 weeks
- Course variable resolvement may occur in weeks some may ast years
- Asymptomatic but can be painful in plantar warts

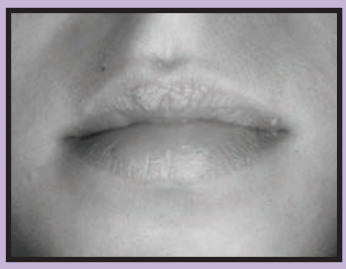


WORK PROCESS	STANDARD	REQUIREMENT
1. Registration	All cases to be registered in the standard registration book	**Equipments :** Scapel blade **Medications:** • Salicylic acid 20% in Vaseline dly/bd • Podophyllin 10 - 25% (contraindication in pregnancy)
2. History Taking	2.1. Site of growth 2.2. Duration of skin growth 2.3. Painful or painless 2.4. Any rapid changes in size or colour 2.5. Any bleeding	
3. Physical Examination	**3.1. Site, size, surface and colour** **3.2. Numbers** **3.3. Inflammation** **3.4. Associated lymphadenopathy** **3.5. Diagnostic criteria of warts** • Pairing down the lesion with scapel blade will reveal punctate bleeding on the surface • In corn, only thickened epilthelial seen • In melanoma, dark friable vascular tissues	
4. Differential Diagnosis	4.1. Molluscum contagiousm 4.2. Callus/corn 4.3. Squamous Ca 4.4. Melanoma	
5. Management	5.1 No specific treatment especially in children • Majority will involute spontaneously in 3 - 4 months **Local treatment** • Salicylic acid 20 % in Vaseline dly/bd • Podophyllin 10 - 25% (contraindication in pregnancy) Both alternately 3 - 4 months. Pair the warts before applying local treatment	

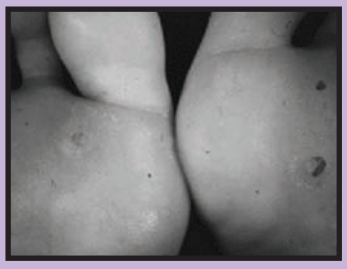
WORK PROCESS	STANDARD	REQUIREMENT
6. Health Education	Advice : 6.1. Skin hygiene 6.2. Advice to see doctor if sudden changes in size, colour, bleeding	**Equipments :** Scapel blade **Medications:** • Salicylic acid 20% in Vaseline dly/bd • Podophyllin 10 - 25% (contraindication in pregnancy)
7. Referral	7.1 Suspicous of malignant changes; sudden changes in size, colour, bleeding 7.2 Not responding to local treatment with salicylic acid/ podophllin after 3 - 4 months (For cryotheraphy or curettage - electrodissection). 7.3 Pregnancy	



COMMON WARTS



FLATS WARTS

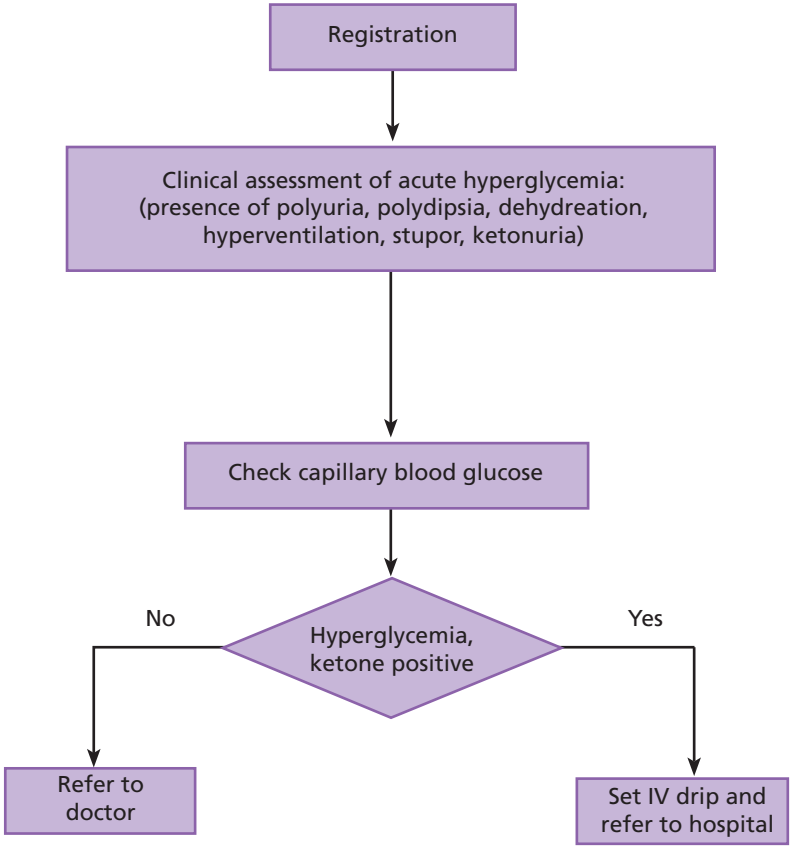


PLANTAR

Acute Hyperglycaemia

8

8. MANAGEMENT OF ACUTE HYPERGLYCAEMIA



WORK PROCESS	STANDARD	REQUIREMENT
1. Registration	1. Register all cases in the standard registration book	Registration book BP set Thermometer Glucometer ECG Torchlight Stethoscope IV Normal Saline Oxygen therapy
2. History Taking	2.1. History of diabetes mellitus 2.2. Symptoms of polyuria, intense thirst, dry mouth, hyperventilation and deterioration of conscious level 2.3. Poor compliance to diabetic treatment. 2.4. Review patient's diabetic medication	
3. Physical Examination	3.1. Conscious level 3.2. Vital sign - look for hypotension 3.3. Level of hydration - look for dehydration 3.4. Check for signs of infection eg: pneumonia or infected ulcer 3.5. Look for signs of restlessness, delirium, stupor and hyperventilation	
4. Consider Differential Diagnosis	4.1. Other causes of dehydration, delirium or coma Eg: Septicemia, Encephalitis	
5. Investigations	5.1. Blood sugar 5.2. Urine ketone 5.3. Full Blood count 5.4. ECG	
6. Management	6.1. Refer doctor 6.2. Set IV Normal saline 6.3. Review medication 6.4. Review patient's diabetic treatment	
7. Health Education	7.1. All diabetics are at risk of developing acute and chronic complications.	

WORK PROCESS	STANDARD	REQUIREMENT
	7.2. Acute complications include hypo and hyperglycemic coma. Both can be fatal if not treated on time. 7.3. If you are diabetic and you have symptoms of excessive thirst, feeling of dryness, passing a lot of urine, difficulty in breathing and feeling of faintness you could be having hyperglycaemia. Drink plenty of water and see your doctor immediately. 7.4. Please control your diabetes to prevent this complication. Modify your diet, have regular exercises and take your diabetic medicine diligently.	Registration book BP set Thermometer Glucometer ECG Torchlight Stethoscope IV Normal Saline Oxygen therapy
8. Referral	8.1. Refer all cases of acute symptomatic hyperglycaemia to hospital with IV normal saline drip	

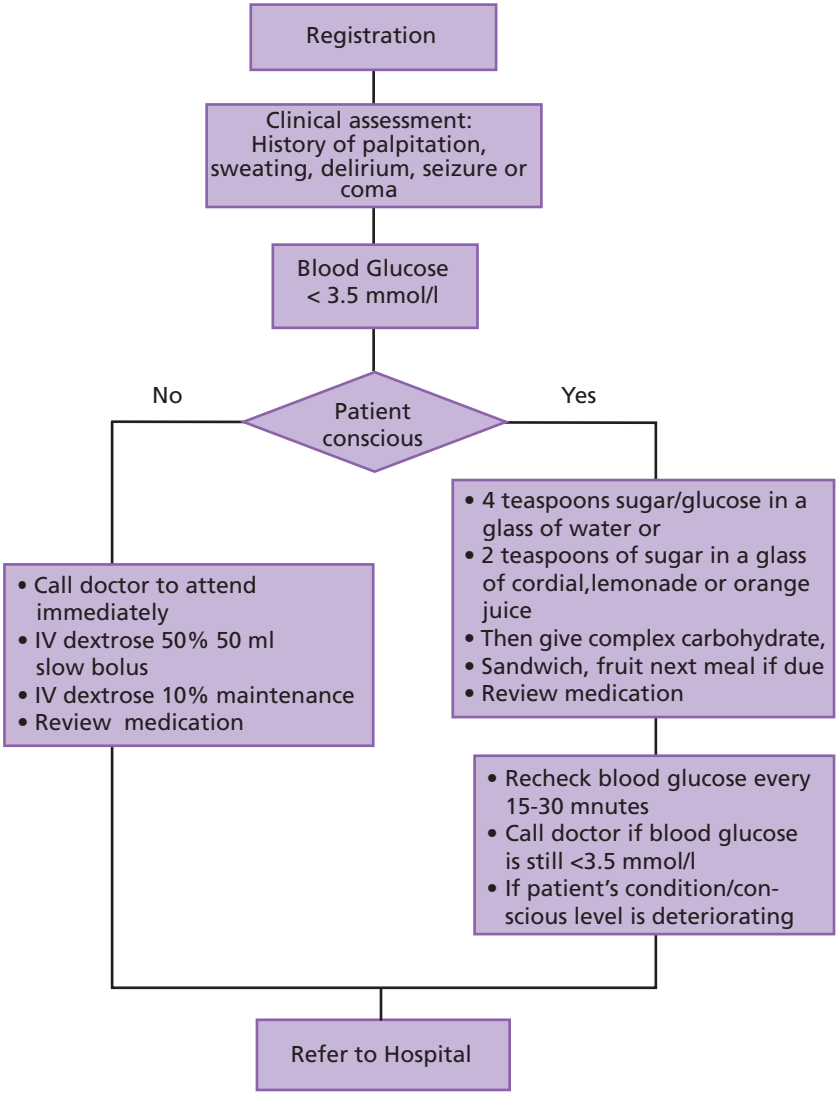
References:

1. CPG Management of type 2 DM 3rd Edition
2. Kumar and Clark Clinical Medicine 5th Edition

Acute Hypoglycemia

9

9. MANAGEMENT OF ACUTE HYPOGLYCEMIA



WORK PROCESS	STANDARD	REQUIREMENT
1. Registration	1.1. Register all cases in the standard registration book	Registration book BP set Thermometer Torchlight Stethoscope ECG Glucometer Oral glucose IV access 50% glucose preparation 10% dextrose drip Oxygen
2. History Taking	2.1. History of diabetes 2.2. History of taking insulin or sulphonylureas e.g: gliclazide, glibenclamide 2.3. History of poor oral intake 2.4. Symptoms of feeling hungry, lethargy, giddiness, palpitation, sweating, seizure, delirium and coma	
3. Physical Examination	3.1. Assess conscious level 3.2. Measure vital signs	
4. Differential Diagnosis For Hypoglycemia With Acute Symptoms	4.1. Adrenal gland disorder eg: Addison's disease 4.2. Hepatic or renal failure 4.3. Epilepsy 4.4. Organic brain disease eg encephalitis, brain tumour	
5. Investigation	5.1. Cappillary/venous blood glucose 5.2. UFEME 5.3. Renal Profile	
6. Management	6.1. Call doctor immediately if consciousness is impaired. 6.2. Give oral glucose if patient is conscious 6.3. If patient is unconscious, give IV dextrose 50%, 50 ml slow bolus, followed with maintenance IV dextrose 10% before sending patient to hospital. 6.4. Review patient's diabetic treatment	
7. Health Education	7.1. Hypoglycemia is a dangerous acute complication of diabetes. It can be fatal if not treated immediately. 7.2. Hypoglycemia can be caused by poor oral intake, overdosing of oral antidiabetics or patient has concomitant renal failure	

WORK PROCESS	STANDARD	REQUIREMENT
	7.3. If you have symptoms like feeling very hungry, have giddiness, palpitation, blurring of vision, sweating and feeling of faintness you maybe suffering from hypoglycemia 7.4. If you have such symptoms and you have a glucometer, check your glucose level immediately. 7.5. If your blood glucose is less than 3.5mmol/l you are having hypoglycemia. 7.6. Call someone to help you. 7.7. Take a glass of sweet drinks or sweets, followed with food. 7.8. Go to your doctor immediately. 7.9. It is good to invest a glucometer especially if you are on insulin 7.10. Take small regular meals if you are on insulin. 7.11. If you have renal failure the doctor will adjust your medication	Registration book BP set Thermometer Torchlight Stethoscope ECG Glucometer Oral glucose IV access 50% glucose preparation 10% dextrose drip Oxygen
8. Referral	8.1. Impaired consciouness 8.2. Glucose level persistently < 3.5 mmol/l 8.3. Poor oral intake 8.4. Poor general condition	

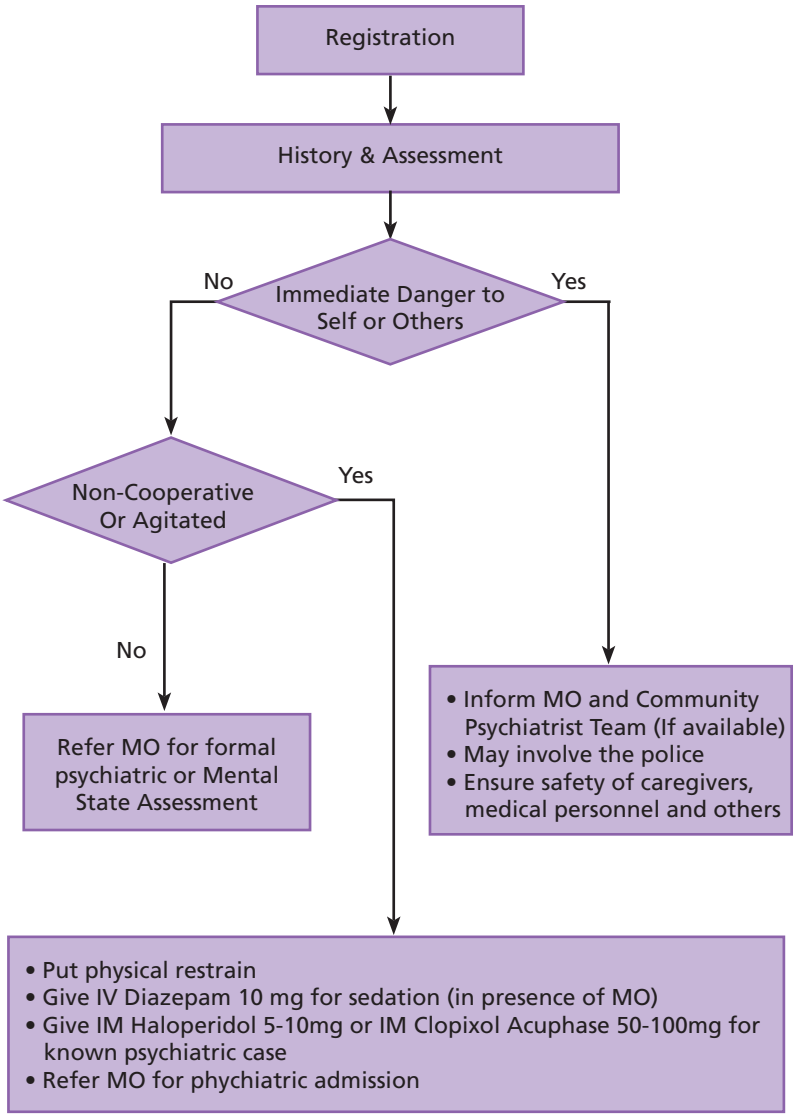
References:

1. CPG Management of type 2 DM 3rd Edition
2. Kumar and Clark Clinical Medicine 5th Edition

Violent Psychiatric Patient

10

10. MANAGEMENT OF VIOLENT PSYCHIATRIC PATIENT



WORK PROCESS	STANDARD	REQUIREMENT
1. Registration	• All patients seen should be registered in the standard registration book	**Equipment** • Registration book PER-PL 102 • Safe restraining equipment **Medication** • IV Diazepam • IM Haloperidol • IM Clopixol Acuphase
2. History Taking	**2.1. Triage** • Is patient in immediate danger to self or others? - If yes, ensure safety of caregivers as well as safety of medical/health personnel as priority • In presence of weapon, it is advisable to involve the police personnel as well • For agitated and uncooperative patient but not in immediate danger to self or others, patient may be restrained and tranquilizers may be given after discussion with MO • For less agitated, cooperative patients, arrange and facilitate urgent MO referral for formal mental state assessment **2.2. Gather information from** relatives of patients or previous medical/psychiatric notes • Review compliance to anti-psychotics **2.3. Be aware of warning signs of impending violence** • Has previous history of violence • Patient is angry, impulsive, emotional, demanding and/or threatening behaviour • Patient is hyperactive; pacing or has any increased motor activity • Presence of substance abuse especially intoxication (eg: amphetamine-ATS, alcohol) or withdrawal • Patient has poor eye contact **2.4. Try to avoid violence by:** • Taking a non confrontational approach • Being polite, calm and respectful • Being flexible	
3. Physical Examination	Usually not possible if patient is violent and aggressive.	

WORK PROCESS	STANDARD	REQUIREMENT
4. Differential Diagnosis	Organic diseases example delirium secondary to sepsis.	**Equipment** • Registration book PER-PL 102 • Safe restraining equipment **Medication** • IV Diazepam • IM Haloperidol • IM Clopixol Acuphase

5. Management	**5.1. Patient in immediate danger to self and/or others**
	• Inform MO and Community Psychiatric Team
	• May involve the police
	• Ensure safety for caregivers, medical personnel and others
	5.2. Patient agitated and uncooperative but not in danger to self or others:
	• Control and restraint only when necessary
	• Restraint techniques must be safe for you and patient
	• Use Safe restraining equipment
	  • Adequate number of personnel with team leader
	  • Specifically designed leather or cloth restraints should be used
	  • Intoxicated patient should be restrained in the left lateral position
	  • Restraints should never be more than 72 hours
	5.3 Medication
	• Give IV diazepam 10 mg in presence of MO
	• Give IM Haloperidol 5 - 10mg stat or IM Clopixol Acuphase 50 -100 mg stat for patients with history of psychiatric illness
	5.4 Patient less agitated and cooperative
	• Refer to MO for formal mental state assessment	

6. Health Education	Advice carers or family members on importance of compliance to medication.	
7. Referral	• All psychiatric patients must be referred to MO for further assessment and management	

References:

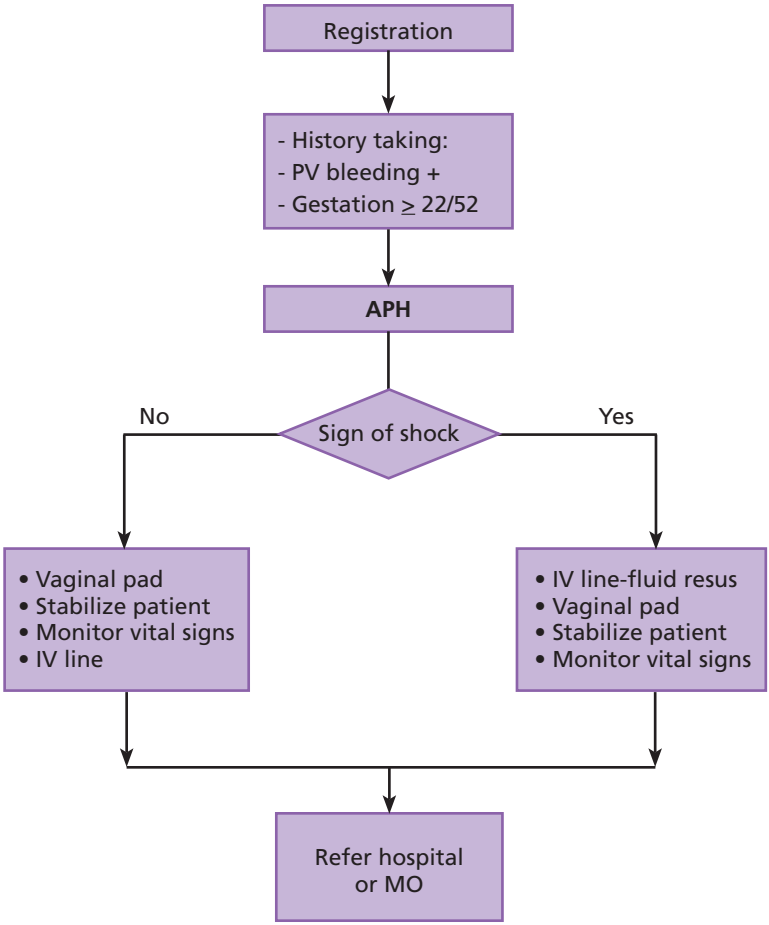
1. Clinical Practice Guideline in the management Psychiatric Disorders Ministry of Health Malaysia
2. Standard Operating Procedures for Medical Assistants in Psychiatry Ministry of Health Malaysia

Antepartum Haemorrhage (APH)

11

11. MANAGEMENT OF ANTEPARTUM HAEMORRHAGE (APH)

Definition of APH: PV bleeding after 22 weeks of gestation



WORK PROCESS	STANDARD	REQUIREMENT
1. Registration	• All cases to be registered in the standard registration book	**Equipment:** • BP set • Stethoscope • IV infusion set: - IV drip set - 2 sets - Cannula size 14 and 16 - 3 units - Surgical spirit - Ringers Lactate - 1 bottle - Normal saline - 1 bottle - Gloves - Sterile gauze - Sterile swab
2. History Taking	**2.1. Present History** • Parity • Gestation ≥ 22/52 • Associated with abdominal pain • Amount of visible blood loss (Asses the amount of blood loss.) Estimates used are: 1 tampon fully soaked = 30ml 1 sanitary pad fully soaked = 120ml 1 sarong fully soaked = 500ml **2.2. Placental abruption** • History of PIH • History of trauma • History of abdominal massage, • History of external cephalic version **2.3. Past medical History** Coagulation disorder; • Inherited blood disorder eg; Von Willebrand disease, idiopathic thrombocytopenia. • Acquired problem eg; chronic liver disease, hepatitis, patient on anticoagulant therapy (for heart valve replacement	
3. Physical Examination	3.1. General appearance; conscious level, alertness, pallor, sign of shock 3.2. Blood pressure, pulse 3.3. Respiration rate 3.4. Consistency of abdomen; "Is it soft or tense?" 3.5. Tenderness of abdomen- Abruptio placenta? 3.6. Lie, presentation and engagement - head remains unengaged, malpresentation, abnormal lie should consider placenta praevia	

WORK PROCESS	STANDARD	REQUIREMENT
	3.7. Audible foetal heart - daptone 3.8. Edema of face, fingers and pretibial due to pre-eclampsia 3.9. Signs of labour - uterine contraction	**Equipment:** • BP set • Stethoscope • IV infusion set: - IV drip set - 2 sets - Cannula size 14 and 16 - 3 units - Surgical spirit - Ringers Lactate - 1 bottle - Normal saline - 1 bottle - Gloves - Sterile gauze - Sterile swab
4. Differential Diagnosis	4.1. Placenta Praevia 4.2. Abruptio Placenta 4.3. Cervical lesion- polyp, cancer, trauma. 4.4. Show	
5. Investigation	• Ultrasound scan - for placental localization and foetal well being	
6. Management	6.1. Call for medical assistance and ambulance call for midwifery nurse or doctor 6.2. Keep patient warm 6.3. Set up 2 IV lines using large bore cannula (size 14/16G) and take blood for GXM 6.4. Run one pint Hartman's / Normal saline solution fast in half an hour if patient is in shock or at 40 drops per minute if the condition is stable 6.5. Catheterize the bladder CBD 6.6. Continue to monitor the patient until the ambulance arrives 6.7. Transfer the patient immediately after stabilization to hospital **NOTE:** *Sign that patient is improving includes a rising blood pressure (aim for systolic blood pressure of at least 100mmHg) and stabilizing heart rate (aim for pulse under 100/min)*	
7. Referral	Inform the nearest hospital to alert the hospital staff/special retrieval team	

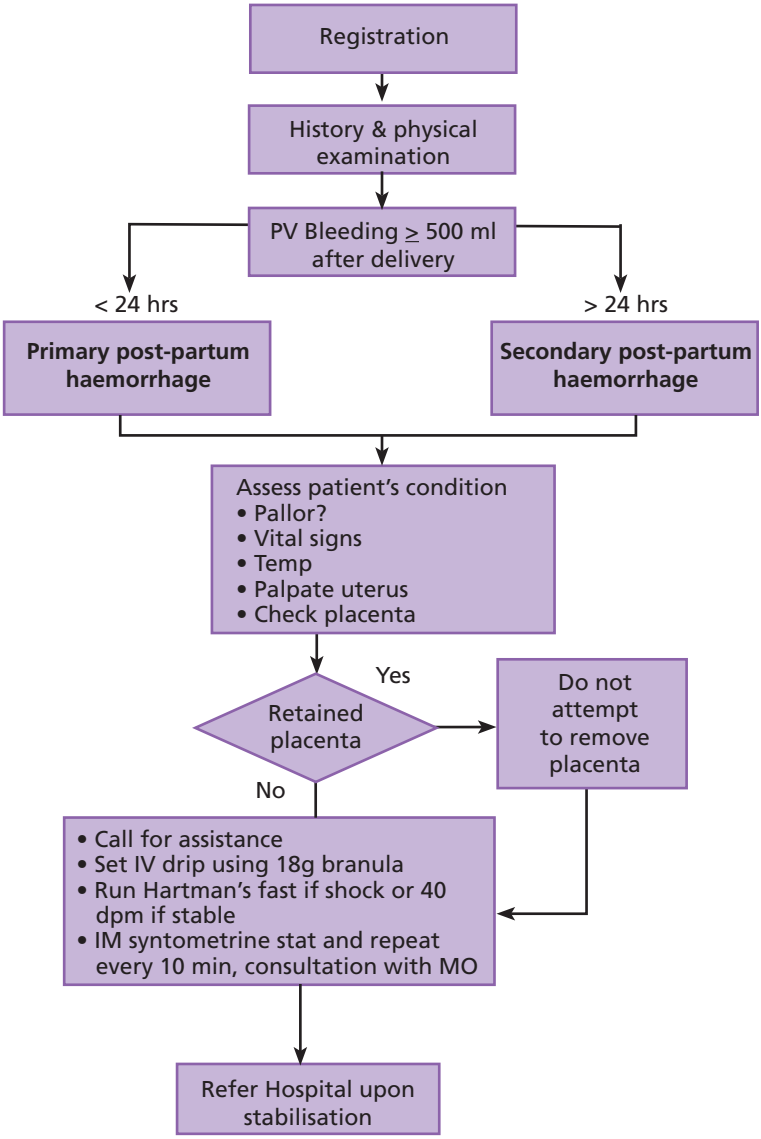
References:

1. Myles Textbook for midwives
2. Standard Operating Procedures for Medical Assistants in Primary Health Care Part 1 (Revised Edition)

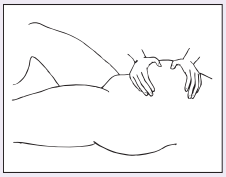
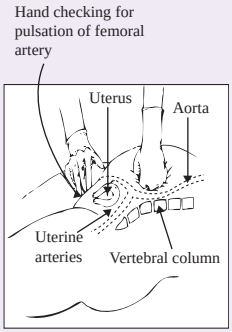
Post Partum Haemorrhage

12

12. MANAGEMENT OF POST PARTUM HAEMORRHAGE



WORK PROCESS	STANDARD	REQUIREMENT
1. Registration	• All patients should be registered in the standard registration book	**Equipment:** • Resuscitative equipment • BP set • Thermometer • Stethoscope • 18G Branula • Crystalloids/colloids solution (avoid dextran 70) • IV Giving set • Pulse Oximeter (optional) • Examining light • Gauze pack/tampon • Gloves and suture set (for primary tear repair only) **Drugs:** • Oxygen • IM Syntometrine • IV Oxytocin
2. History Taking	**2.1. Particulars of delivery-date, time and place** **2.2. Identification of risk factors eg.** • Retained placenta • Multiparity • Prolonged Labour • Previous h/o PPH **2.3. Severity of bleed:** • 1 tampon soaked = 30 mls • sanitary pad soaked = 120 mls • sarong soaked = 500 mls **2.4. Secondary Post-partum Haemorrhage** • Excessive, bright red, blood clot with or without foul smelling lochia • Fever	
3. Examination	3.1. Colour e.g. pallor, cyanosis 3.2. BP, PR, RR 3.3. Palpate the uterus for uterine atony 3.4. Check the placenta for completeness 3.5. Temperature (secondary PPH) **Observe For Early Shock:** • Patient appears pale although conscious • Rapid pulse rate > 110/min • Increased breathing rate > 30/min • BP systolic < 90 mm Hg	
4. Differential Diagnosis	**4.1 PPH** 4.1.1 Uterine atony 4.1.2 Retained placenta 4.1.3 Trauma genital tract or cervix 4.1.4 Endometritis 4.1.5 Retained POC	
5. Investigation	5.1 Full Blood Counts 5.2 Ultra sound 5.3 Blood culture (when indicated)	

WORK PROCESS	STANDARD	REQUIREMENT
6. Management	**6.1. Primary Post Partum Haemorrhage:** • TRIGGER RED ALERT; Call MO/PHN immediately for help • Place patient flat and elevate leg if in shock • Set IV lines using 18G branula and infuse fast with crystalloids(Hartmann) • Massage uterus gently • Give IM syntometrine and repeat every 10 min if necessary • In presence of MO, start oxytocin infusion (40 units in 500mls N/S run at 20-40dpm) • If placenta retained, do not attempt to remove it! • Specific manouvres may be attempted eg. external bimanual compression of uterus or aortic compression • If uterus well contracted but continues bleeding suspect genital trauma **6.2. Secondary Post-partum Haemorrhage:** • Referral to nearest hospital for IV antibiotics and assessment /exploration for retained POC	**Hand positions for external compression of the uterus**   **External bimanual compression**
7. Health Education	• Appropriate Family Planning method • Risk of PPH in next pregnancy • Taking haematinic drug • Breast feeding	
8. Referral	• All cases of PPH should be considered by AMOs as emergency and therefore needs referral immediately to MO/nearest hospital upon stabilization of vital signs for further management	

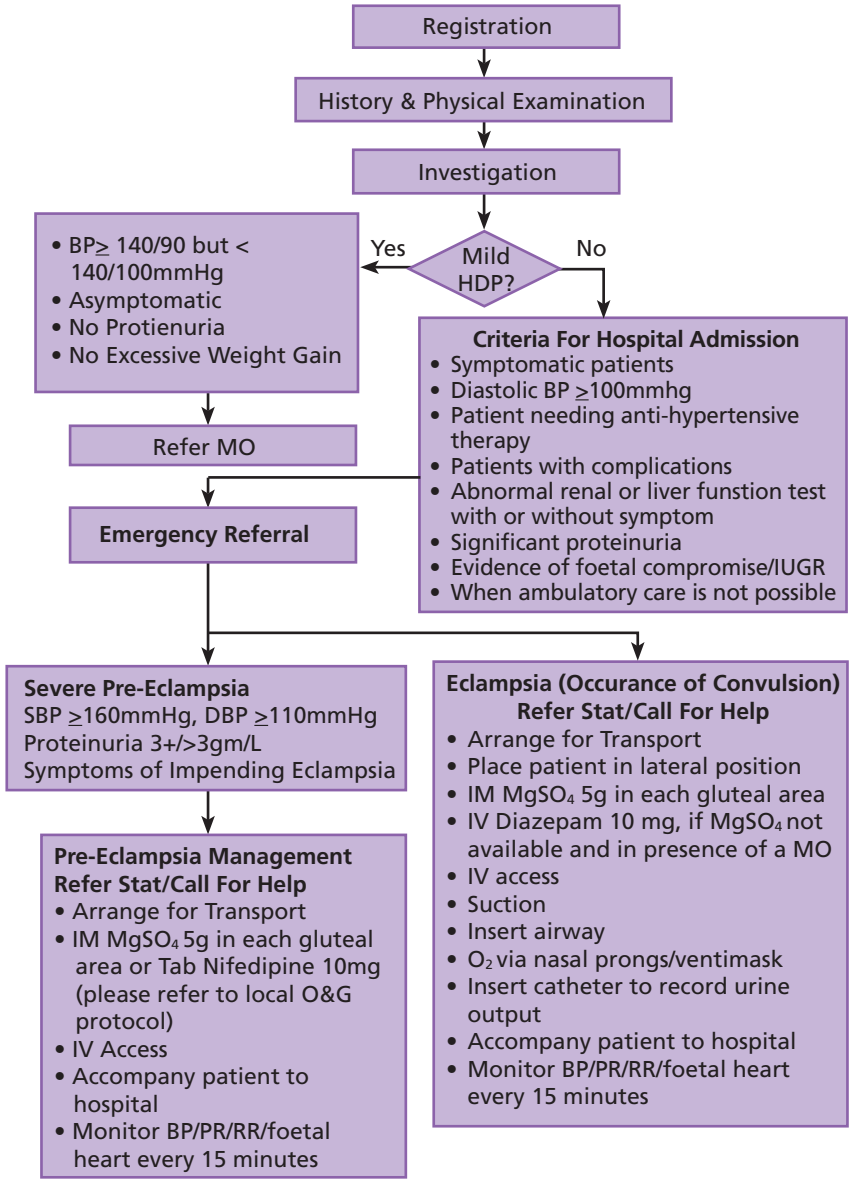
References:

1. Management of PPH at home/ABC - Training Manual for management of PPH,
2. Ministry of Health Malaysia 1998 (National Technical Committee for Confidential Enquiry into Maternal Death)

Pre-eclampsia (PE) and Eclampsia (E)

13

13. MANAGEMENT OF PRE-ECLAMPSIA (PE) AND ECLAMPSIA (E)



WORK PROCESS	STANDARD	REQUIREMENT
1. Registration	• All patients seen to be registered in the standard registration book	**Equipment** • Registration book PER-PL 102 • BP Set • Stethoscope • Nasal prongs • Ventimask • Airway • IV Sets • Oxygen • Suction pump • Urinary catheter • Dipstick for urine albumin **Medication** • Nifedipine • MgSO4 • Inj. IV Diazepam
2. History Taking	**2.1. Pregnant mothers (ask regarding LNMP in all females) may c/o** • headache • epigastric pain • vomiting • oedema • visual disturbance **2.2. Ask/look for risk factors of PE** • maternal age < 20 and > 35 years • nulliparity • previous history of hypertensive disease in pregnancy • multiple gestations • polyhydramnios • underlying renal disease • chronic hypertension • DM • molar pregnancy • low socio-economic group • excessive weight gain **2.3. Look/ask for antenatal card, check previous weight; look for evidence of excessive weight gain > 1 kg/week** **2.4. Past history** • H/O pregnancy induced hypertension **2.5. Family history** • hypertension	
3. Physical Examination	**3.1. General condition** • conscious/alert/unconscious/fits • pallor • facial puffiness/oedema • obesity **3.2. Blood pressure, BP is considered to be increased when** • 140/90mmHg for a period of rest on 2 occasions or • if baseline BP (from antenatal card/OPD card) is known :	

WORK PROCESS	STANDARD	REQUIREMENT
	• increase systolic BP by 30mmHg • increase in diastolic BP by 15mmHg **3.3. Respiratory** • examine for crepitations **3.4. CNS** • examine for hypereflexia • Assess level of alertness	**Equipment** • Registration book PER-PL 102 • BP Set • Stethoscope • Nasal prongs • Ventimask • Airway • IV Sets • Oxygen • Suction pump • Urinary catheter • Dipstick for urine albumin **Medication** • Nifedipine • MgSO4 • Inj. IV Diazepam
4. Differential Diagnosis	4.1. Chronic hypertension 4.2. Chronic hypertension with superimposed PE 4.3. Renal disease 4.4. Urinary tract infection	
5. Investigation	5.1. Dipstick urine for albumin 5.2. PE profile (renal function tests, LFT, platelets) for assessment of mild HDP at Health Clinic.	
6. Management	**6.1. Mild HDP can be managed at outpatient setting by the MO** **6.2. Severe PE or Eclampsia - refer hospital immediately/stat** • Treat as emergency • Set IV access for emergency administration of drugs **6.3. Eclampsia: goals of treatment** • To treat convulsions and prevent recurrence • To control blood pressure • To stabilize mother • To deliver the foetus **6.4. Immediate measures** Call for medical assistance stat • Place patient in lateral position • Give deep IM MgSO4 5g in each gluteal area • Give IV Diazepam 10 mg, if MgSO4 not available, in presence of a MO • Set another IV line for emergency administration of drugs • Suck out secretions and saliva • Insert airway	

WORK PROCESS	STANDARD	REQUIREMENT
	• Give O2 by nasal prongs/ ventimask • Insert urinary catheter to record and monitor urine output • Monitor and record maternal BP, PR and fetal heart rate every 15 min • Accompany patient to hospital **6.5. During transfer** • Continue monitoring mother and foetus • Maintain patient in lateral position • Maintain airway with O2.	**Equipment** • Registration book PER-PL 102 • BP Set • Stethoscope • Nasal prongs • Ventimask • Airway • IV Sets • Oxygen • Suction pump • Urinary catheter • Dipstick for urine albumin **Medication** • Nifedipine • MgSO4 • Inj. IV Diazepam
7. Health Education	Advice: • Inform MO if there are signs and symptoms of impending eclampsia (headache, epigastric pain, vomiting, oedema and visual disturbance). • Take anti-hypertensives medications regularly (if patient is on). • Come for regular follow up in the clinic for maternal and foetal monitoring. • They are at risk of getting hypertension in the future.	
8. Referral	**All cases must be referred.** • Mild PE to MO within 24 hours • Severe PE	

References:

1. Training Manual Hypertensive Disorders In Pregnancy
2. National Technical Committee Confidential Enquiries
3. Into Maternal Deaths Ministry Of Health Malaysia

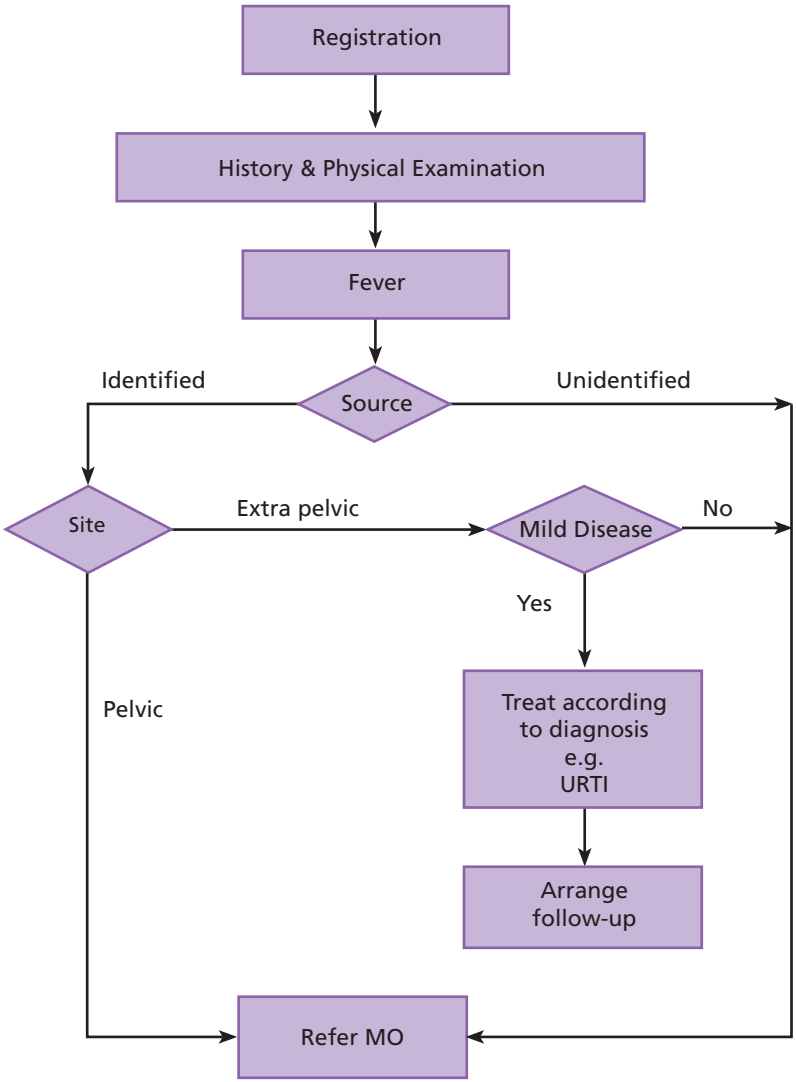




Puerperal Sepsis

14

14. MANAGEMENT OF PUERPERAL SEPSIS



WORK PROCESS	STANDARD	REQUIREMENT
1. Registration	• All patients should be registered in the standard registration book	**Equipment:** • Thermometer • BP set • Stethoscope • Measuring tape • Urine Dipstick Strip • Glucometer
2. History Taking	2.1. Puerperal fever is defined as maternal fever of 38°C or more within the first 42 postpartum days. 2.2. Details of delivery, i.e. date, time and place of delivery. History of any complication prior or at time of delivery. Whether any specific procedure or surgical intervention done. 2.3. Later, history is taken to identify possible source or sources of infection which can be divided as: • Source indentified, either extrapelvic (eg. chest infection, URTI OR DVT) or pelvic (eg. Urinary infection, endometritis) • Source not identified, viral fever, DVT) 2.4. If pelvic sepsis is suspected, ask about nature of lochia, foul smelling, associated tenderness	
3. Physical Examination	3.1. General condition for signs of severe sepsis (lethargy, dehydration) 3.2. Temperature, BP and pulse rate 3.3. BP and pulse rate 3.4. Cardio-respiratory examination 3.5. Abdomen and LSCS wound if done 3.6. Breast and external genital inspection including episiotomy wound **(to be done by PHN or MO)** 3.7. Skin for cellulitis or erythema 3.8. Calf tenderness for DVT	
4. Differential Diagnosis	4.1 Endometritis 4.2 Wound Infection (episiotomy/ LSCS wound) 4.3 Breasf engorgement/abscess	

WORK PROCESS	STANDARD	REQUIREMENT
	4.4 UTI 4.5 Pylonephritis 4.6 URTI 4.7 DVT	**Equipment:** • Thermometer • BP set • Stethoscope • Measuring tape • Urine Dipstick Strip • Glucometer
5. Investigation	5.1. FBC 5.2. UFEME for UTI/acute pyelonephritis 5.3. CXR if chest infection suspected 5.4. Random blood glucose if diabetes suspected 5.5. BFMP in endermic areas	
6. Management	6.1. Confirmed mild infections such as upper respiratory tract infection, mild wound sepsis or breast engorgement - refer to MO • Ensure patient is followed up and any suggestion of worsening sepsis needs urgent review. 6.2. Suspected puerperal/pelvic infection needs immediate referral to nearest the hospital for intravenous antibiotics covering for both aerobic as well as anaerobic infection 6.3. Suspected DVT requires emergency admission to hospital for investigation and heparinisation	
7. Health Education	7.1 To take medication as prescribed 7.2 Increase fluid intakes 7.3 Advice to see doctor if fever or other symptoms worsened	
8. Referral	• Except for mild uncomplicated URTI, all other causes of puerperal fever or fever of unknown source requires admission or referral to MO	

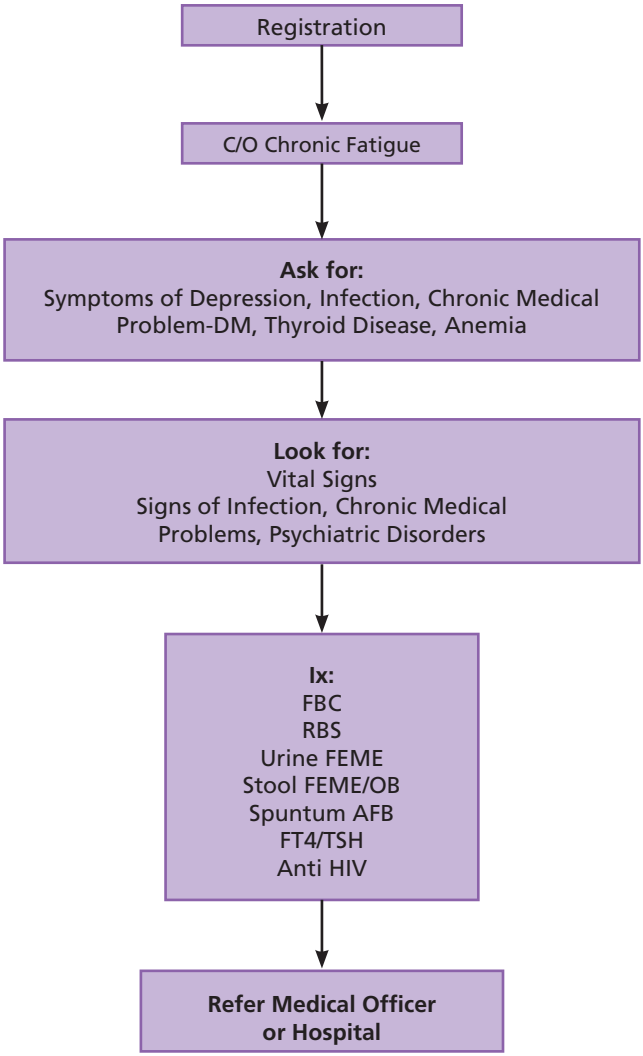
References:

1. Perinatal Care Manual Section 3(Intrapartum and Post-partum care) Ministry of Health Malaysia
2. Problem Orientated Approach to Obstetrics and Gynaecology- S. Arulkumaran et al

Chronic Fatigue

15

15. MANAGEMENT OF CHRONIC FATIGUE



WORK PROCESS	STANDARD	REQUIREMENT
1. Registration	• All patients seen should be registered in the standard registration book	**Equipment** • BP set • Stethoscope • Thermometer • Weighing machine • Glucometer • ECG • Torch light
2. History Taking	**2.1. The inquiry should begin with a thorough description of the fatigue to be sure that patient is not confusing focal neuromuscular disease with generalized lassitude** • Ask for psychological symptom of depression or anxiety • Any abuse of hypnotics or tranquilizer • Any fever, sweats, weight loss and adenopathy for malignant, or occult infection • Endocrine causes - polyuria, polydipsia, hoarseness, cold intolerance, abnormal menses • Full listing of all patient's medication eg anti-histamine, antihypertension, psychotropic agents • H/O eating habits/ loss of appetite **2.2. Past medical history:** • History of anemia, rheumatic fever, alcohol, drug abuse, depression, TB, HIV infection	
3. Physical Examination	3.1. Vital signs: Blood pressure, pulse, temperature and weight 3.2. Skin - pigmentation, purpura, rash, jaundice, pallor 3.3. Examine for lymphnode, goiter 3.4. Systemic examination: Lung, heart murmur, abdomen for organomegaly, mass and ascitis 3.5. Neurological examination for weakness and focal lesion 3.6. Mental status assessment	

WORK PROCESS	STANDARD	REQUIREMENT
4. Investigation	5.1. FBC and ESR 5.2. Urine FEME 5.3 Stool FEME/Occult blood 5.4 Renal function 5.5 Blood sugar 5.6. Thyroid function 5.7. TB screening 5.8. HIV testing	**Equipment** • BP set • Stethoscope • Thermometer • Weighing machine • Glucometer • ECG • Torch light
5. Management	• Reassurance • Treat infection • Stabilise chronic medical problem • Treat underlying psychological/ psychiatric disorder • Refer hospital if required	
6. Health Education	• It is often useful to determine patient's view of their illness before proceeding with patient education, so that the explanation will address patient concerns and perception.	
7. Referral	Referral to Medical Officer for further evaluation is usually needed if:- - signs of infection - unstable chronic medical problem, - psychological disorder that needs medication	

References:

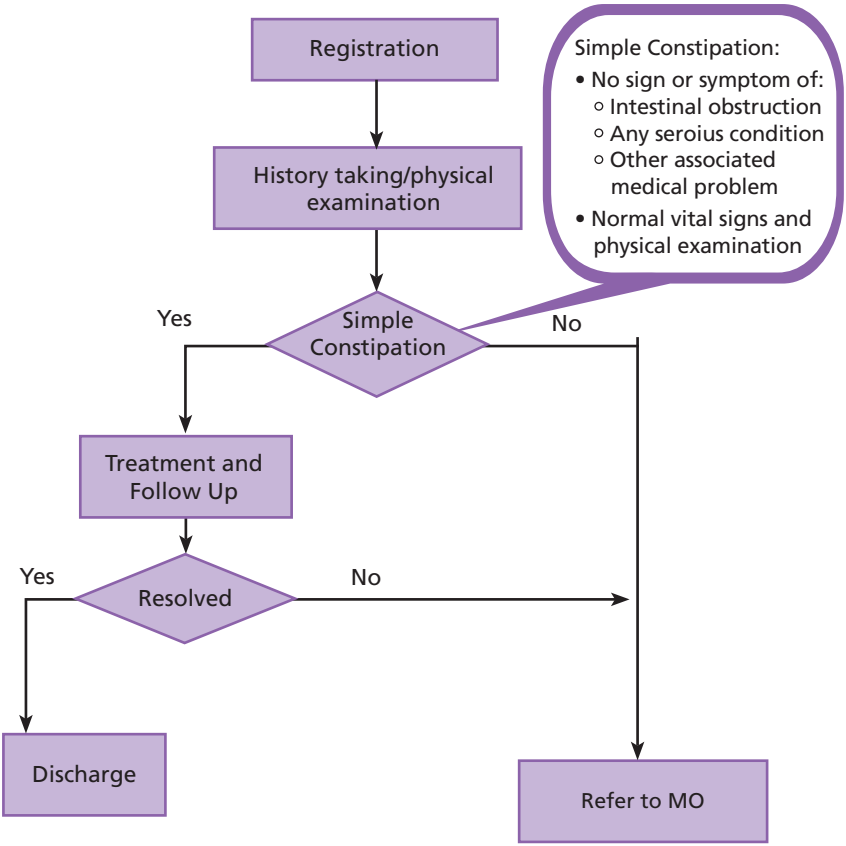
1. Kumar and Clark Clinical Medicine 5th Edition

Constipation In Adults

16

16. MANAGEMENT OF CONSTIPATION IN ADULTS

Definition of Constipation : Difficult passage of small hard stools



WORK PROCESS	STANDARD	REQUIREMENT
1. Registration	• All cases to be registered in the standard registration book	**Equipment:** • Thermometer • BP set • Stethoscope • Per rectum set
2. History Taking	**2.1. Date and onset** **2.2. Sign of intestinal obstruction** • Vomiting • Distention of abdomen • Abdomen pain (colicky) **2.3. Symptoms of serious conditions** • Blood in the stools • Recent change in bowel habits • Bowel leakage • Unsatisfactory defecation • Abdominal pain • Rectal discomfort • Symptoms of anaemia **2.4. Medical history** • Depression • CVA • Diabetes (autonomic neuropathy) • Hypothyroidism • Any drug or treatment taken	**What medications to ask? These medication can cause constipation:** **Antacids** **Anticholinergics** **Antidepressants** **Antihistamines** **Calcium channel blockers** **Clonidine (Catapres)** **Diuretics** **Iron** **Levodopa (Larodopa)** **Narcotics** **Nonsteroidal anti-inflammatory drugs** **Opioids** **Psychotropics** **Sympathomimetics**
3. Physical Examination	**3.1 General condition** • Vital signs • Pallor +/- • Jaundice • Cachexia **3.2 Abdominal palpation** • Look for distension • Mass • Liver enlargement **3.3 Per rectum** • Pain • Indurations • Sphincter tone • Nature of faeces • Rectal wall • Prostate	

WORK PROCESS	STANDARD	REQUIREMENT
4. Differential Diagnosis	4.1. Malignancy 4.2. Impacted faeces 4.3. Depressive illness 4.4. Purgative abuse 4.5. Local anal lesions 4.6. Drugs associated constipation 4.7. Hypothyroidism.	**Equipment:** • Thermometer • BP set • Stethoscope • Per rectum set
5. Investigation	**If indicated :** 5.1. FBC 5.2. Stool for occult blood 5.3. Abdominal x-ray (erect) The results of investigation may also indicate the following: i. FBC: Anemia may occur in patient with uremia and malignancy. ii. Stool Occult blood may be positive in patient with malignancy iii. Abdominal Xray will show obstruction feature in patient with intestinal obstruction	
6. Management	6.1. Treat the cause 6.2. Last resort to achieve regularity, give osmotic laxative	
7. Health Education	7.1. Reassurance and education for simple constipation 7.2. High fiber diet eg vegetables and water intake eg 2 litres/ day.	
8. Referral	8.1. Refer if constipation is recent onset without obvious cause 8.2. Patient with chronic symptoms which do not respond to simple measures	

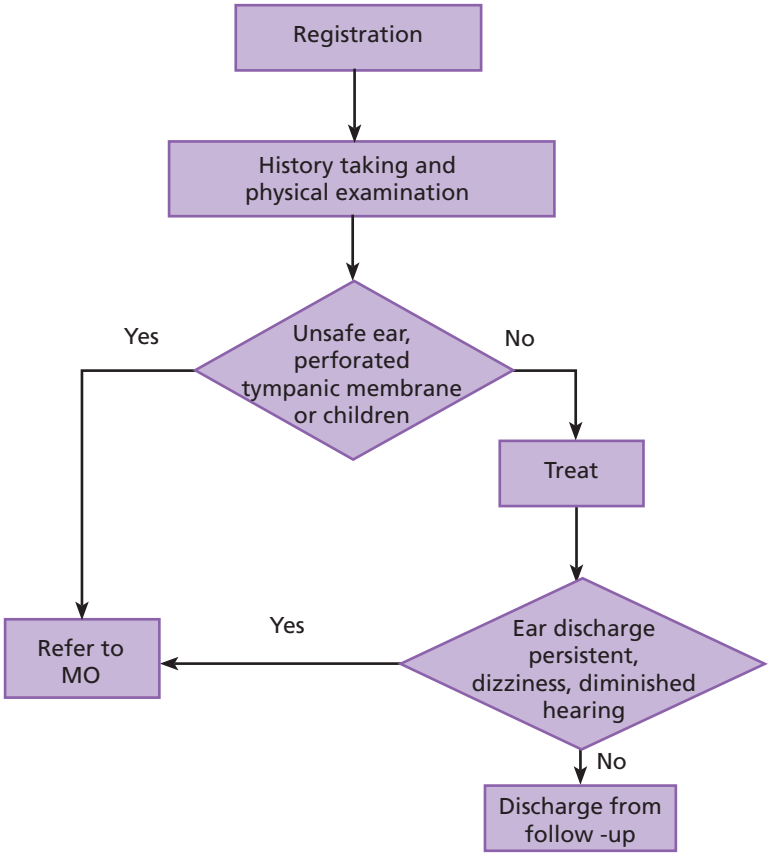
References:

Allan H. Gorol, Primary Care Medicine, 4th Edition,

Ear Discharge

17

17. MANAGEMENT OF EAR DISCHARGE



CRITERIA FOR TYPES OF EAR DISCHARGES

SITE / REMARKS	UNSAFE	SAFE
	ATTIC PERFORATION	CENTRAL PERFORATION
Source	Cholesteatoma	Mucosa
Odour	Foul	Inoffensive
Amount	Scant, never profuse	Profuse
Nature	Purulent	Mucopurulent

WORK PROCESS	STANDARD	REQUIREMENT
1. Registration	All patients should be registered in a standard registration book	**Equipment:** • Diagnostic set • Head light source if possible / torchlight • Cotton wool **Medications:** • Paracetamol • Antibiotic Ampicillin/ Amoxycillin
2. History taking	**2.1. Present complaint** • Which ear • Nature of discharge • Duration of discharge • Any hearing loss • Any fever • Any pain • Recent URTI • Recent swimming • Any trauma **2.2. Past medical history** • Similar history	
3. Physical Examination	**3.1. General condition** **3.2. Vital signs** • Temperature • Blood pressure • Respiratory rate **3.3. Local/Ear examination** • Examine both ears preferably examining the normal ear first before seeing the affected one • tympanic membrane • external auditory canal • purulent / bloody discharge • impacted wax • foreign body • cholesteatoma • examine for mastoid tenderness.	
4. Differential Diagnosis	4.1. Otitis externa 4.2. Refractory otitis externa 4.3. CSOM 4.4. Foreign body 4.5. Trauma	
5. Investigation	• Ear swab for Pus C&S	
6. Management	6.1. Clean by dry mopping with tissue wick/cotton wool over the affected ear. This is the keystone of management and subsequently enables topical medication to be applied directly to the ear.	

WORK PROCESS	STANDARD	REQUIREMENT
	6.2. If profuse discharge, see daily to clean the canal or teach the patient to do it at home with cotton wool. 6.3. Pain - analgesic. 6.4. If foreign body present - attempt removal only if superficial 6.5. Antibiotic is not routinely indicated (indicated if presence of acute infection)	
7. Health Education	7.1. Keep the ear dry, especially those in water sport and protect the ears with various water-proofing methods e.g.: • Ear plug • Bathing cap 7.2. Avoid poking objects such as hairpins and cotton buds in the ear to clean the canal	
8. Referral	8.1. If tympanic membrane perforated 8.2. If ear discharge worsening / persisting or associated with other symptoms e.g. giddiness, nausea, vomiting, fever or headache 8.3. If fungal infection suspected 8.4. Trauma cases 8.5. Tenderness of mastoid area 8.6. Children 8.7. Medico-legal cases	

References:

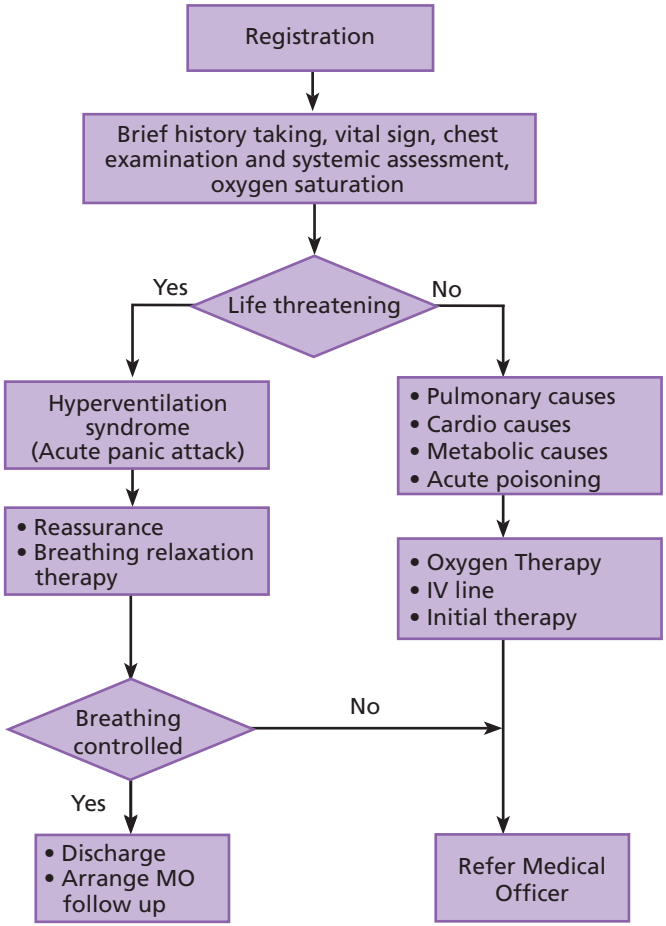
1. General Practice, Second Edition. By: John Murtagh
2. Practical General Practice – Guidelines for logical management, second edition. By Alex Khot & Andrew Polmear

Hyperventilation

18

18. MANAGEMENT OF HYPERVENTILATION

Definition : Hyperventilation is a condition in which minute ventilation exceeds metabolic demands resulting in hemodynamic and chemical changes that produce symptoms such as palpitation, chest pain, abdominal pain, tingling sensation around the mouth and numbness of hands and feet.



Note : Rebreathing paper bag is no longer approved as mode of treatment in managing hyperventilation because it can be a symptom of serious underlying pathology

WORK PROCESS	STANDARD	REQUIREMENT
1. Registration	• All cases to be registered in the standard registration book	Registration book BP set Thermometer Glucometer ECG Torchlight Stethoscope Pulse Oxymeter IV Normal Saline Oxygen therapy set
2. History Taking	**Relevant history taken** **2.1. Presenting history** • Alleged acute difficulty in breathing which may be associated with palpitation, chest pain, abdominal pain, tingling sensation around the mouth and numbness of hands and feet. **2.2. Past medical history** • No history of pulmonary heart disease and metabolic disease **2.3. Social history** • No history of substance abuse • Presence of conflict with friends or family members • Stress at school or workplace • Poor family support • Conflict in marriage	
3. Physical Examination	**3.1. General examination** • Tachypnea, vital signs stable • Anxious, conscious, alert and no uraemic odour • Carpopedal spasm may be present. • Pupils-normal, equal and reactive to light **3.2. Chest** • Expansion equal, air entry equal and adequate • No crept or rhonci **3.3. Heart** • S1 S2 no added sound **3.4. Lower Limbs** • No swelling or inflammation (for DVT)	
4. Differential Diagnosis	4.1. Pulmonary causes 4.2. Metabolic causes 4.3. Cardio causes	

WORK PROCESS	STANDARD	REQUIREMENT
5. Investigation	5.1. If hyperventilation not responding to initial measures, do glucometer and urine ketone. (to rule out severe hyperglycemia) 5.2. Do oxygen saturation measurement 5.3. ECG	Registration book BP set Thermometer Glucometer ECG Torchlight Stethoscope Pulse Oxymeter IV Normal Saline Oxygen therapy set
6. Management	6.1. Reassurance and explanation 6.2. Explain to the patient the way they breathe, rapid and deep that causes the physical symptoms 6.3. Help them to control the rate and depth of breathing by asking them to follow your breathing relaxation technique 6.4. If hyperventilation resolved arrange follow up with MO 6.5 If hyperventilation persists refer patient to MO urgently	
7. Health Education	• Explain to the patient what is hyperventilation syndrome and teach them relaxation technique and how to break the cycle of the symptoms.	
8. Referral	8.1. Hyperventilation not resolved by 10 -15 minutes 8.2. Suspect organic causes - eg: pneumonia, pneumothorax.	

References:

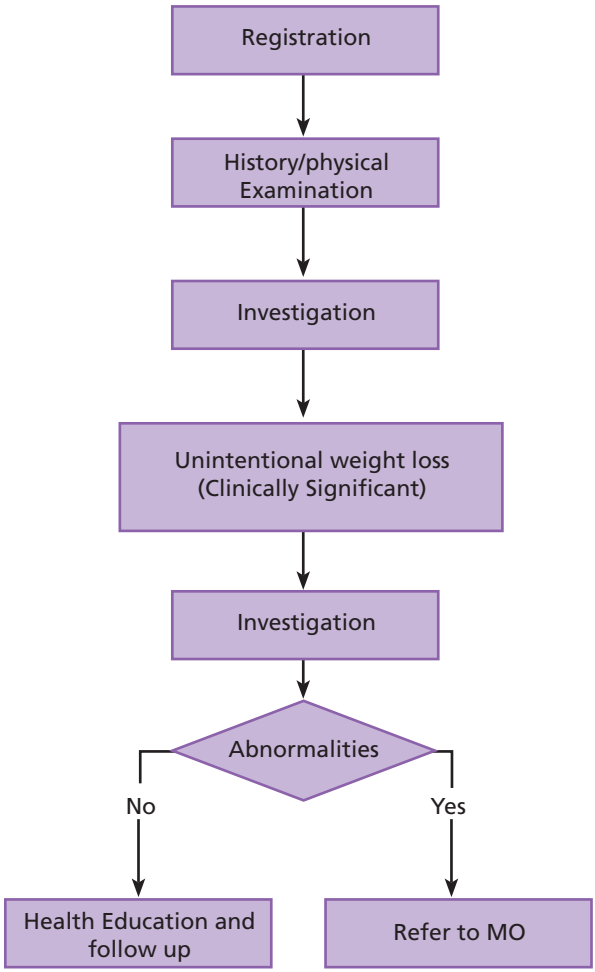
- Minor Emergencies Philip Buttaravoli Thomas stairs
- http://www.emedicine.com/emerg/topic270.htm

Loss of Weight

19

19. MANAGEMENT OF PATIENT WITH UNINTENTIONAL LOSS OF WEIGHT

Definition of Loss of Weight : Weight loss of ≥ 4.5 kg or ≥ 5% of body weight in the previous 6-12 months



WORK PROCESS	STANDARD	REQUIREMENT
1. Registration	All patients should be registered in the standard registration book	**Equipment:** • Weighing scale • Height scale • Thermometer • BP set • Stethoscope • Torch light • Gloves • Vaseline • Tendon hammer • Ophthalmoscope
2. History Taking	**2.1. Presenting Complaints** • Amount of weight loss ; previous weight and current weight • Weight loss gradual or sudden • Period of time taken for the weight loss • Weight loss intentional or unintentional **2.2. Associated symptoms (if weight loss unintentional)** • Appetite • Fever • Pain; site and description • Cough (prolonged) • Breathlessness • Palpitation • Changes in pattern of urination (increased, decreased or difficulties) • Change in bowel habits (diarrhoea, constipation) • Dysphagia (difficulty in swallowing) • Anxiety, stress • Depression • Reduced eating/dieting • Exercising more • Uncontrollable hunger with palpitations, tremors, sweating • Dental problems/mouth sores • Increased thirst or drinking • Presence of swelling / lumps anywhere • Impaired taste sensation • Impaired sense of smell **2.3. Past History (medical/ surgical)** • Tuberculosis • Cancer • Diabetes • Anxiety • Depression • Thyroid problems • Any previous surgery	

WORK PROCESS	STANDARD	REQUIREMENT
	2.4. Family History • Cancers • Tuberculosis • Diabetes • HIV (spouse/partner) • Thyroid problems **2.5. Drug History** • Current and past (prescribed and over the counter) **2.6. Social history** • Smoking • Alcohol • Sexual history (multiple sexual partners) • Drug abuse • Present/past occupation • Regular income • Need to depend on others • Lack of transportation • Isolation/living alone	**Equipment:** • Weighing scale • Height scale • Thermometer • BP set • Stethoscope • Torch light • Gloves • Vaseline • Tendon hammer • Ophthalmoscope
3. Physical Examination	**3.1. General examination** • Pulse • BP • Temperature • Respiratory rate • Height, weight, BMI • General appearance • Pallor • Jaundice • Skin turgor • Lymph node enlargement • Scars of previous surgeries **3.2. Specific examination** • Oral cavity: dental problems, ulcers, thrush • Thyroid: thyroid enlargement • Cardiovascular system • Respiratory system • Abdomen; liver, spleen and other organ enlargement • Breast examination • Rectal examination; prostate • Pelvic examination for females (if indicated) • Neurological examination	

WORK PROCESS	STANDARD	REQUIREMENT
	• Other Examination; depending on other specific positive history provided, e.g. Sign of venepuncture sites of drug abuse.	**Equipment:** • Weighing scale • Height scale • Thermometer • BP set • Stethoscope • Torch light • Gloves • Vaseline • Tendon hammer • Ophthalmoscope
4. Differential Diagnosis	4.1. Cancers 4.2. Depression, dementia or other psychiatric illnesses 4.3. Gastrointestinal disorders other than cancers; ulcers, cholecystitis, gastro-esophageal reflux, oral problems 4.4. Endocrine problems; diabetes, hyperthyroidism, hypothyroidism 4.5. Infection; Tuberculosis, HIV 4.6. Medications; use of multiple medications causing loss of appetite or specific medication causing diarrhoea 4.7. Cardiovascular disease; heart failure 4.8. Neurological disease; stroke, Parkinson's disease, dementia 4.9. Respiratory disease; severe COPD 4.10. Renal disease Renal failure, Nephrotic syndrome 4.11. Connective tissue diseases 4.12. Alcoholism 4.13. Isolation 4.14. Economic hardship	
5. Investigations	5.1 FBC 5.2. ESR 5.3 Sputum AFB if patient having cough 5.4. Urine FEME 5.5. Blood Glucose 5.6. HIV Screening 5.7. Chest X Ray 5.8. Further investigations done by MO according to the differential diagnosis	

WORK PROCESS	STANDARD	REQUIREMENT
6. Management	6.1 Refer to medical officer if any abnormalities found 6.2 Follow up 3 months and reassess for cases without abnormalities	
7. Health Education	Advice : • Remove any dietary restrictions • Add flavour to food • Physical exercise - improves appetite.	
8. Referral	All cases must be referred to medical officer for assessment if identified to have significant unintentional loss of weight	

References:

1. Huffman GB. Evaluating and treating unintentional weight loss in the elderly. American Family Physician 2002; 65:640-650
2. Massompoor SM. Unintentional weight loss. Shiraz E-Medical Journal. Volume 5, No.2, April 2004

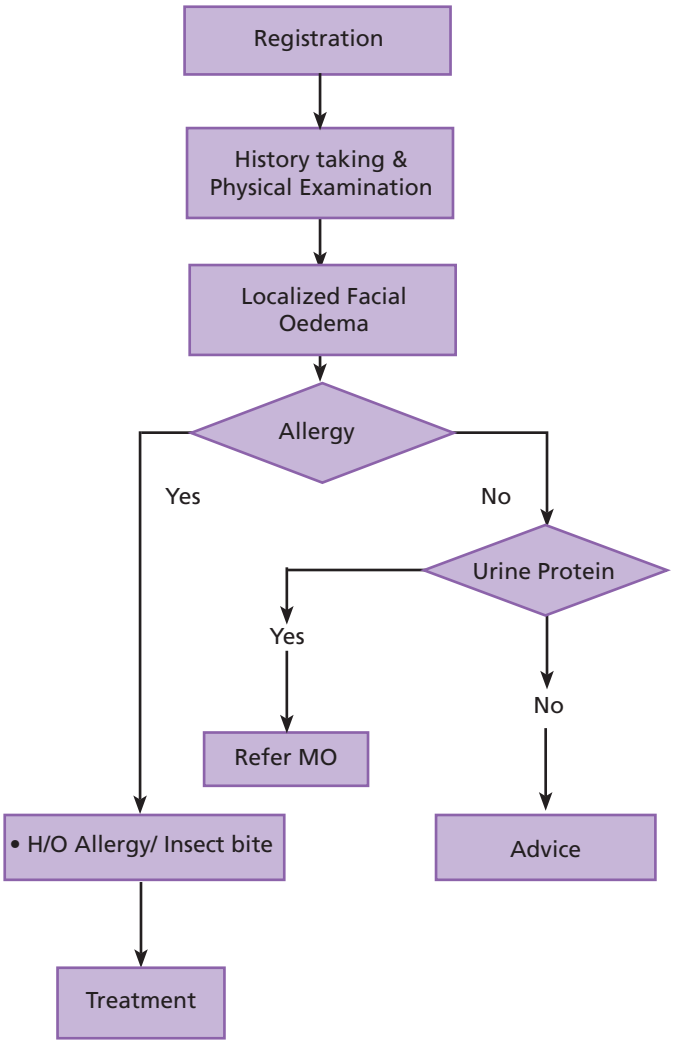
Oedema In Adult

20

20. MANAGEMENT OF OEDEMA IN ADULT

Flow Chart For Management Of Localised Oedema

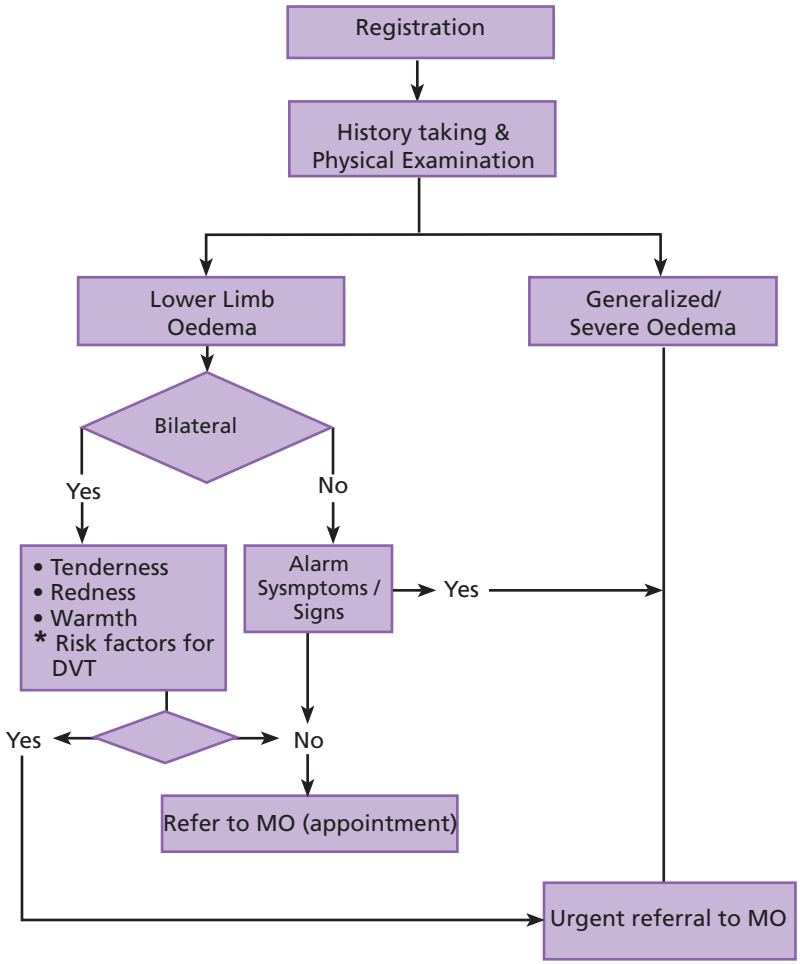
Definition of Oedema : accumulation of excess fluid in the interstitial space, which is clinically detectable as a visible or palpable swelling.



MANAGEMENT OF OEDEMA

Flow Chart For Management Of Lower Limb, Generalized And Severe Oedema

Definition of Oedema : accumulation of excess fluid in the interstitial space, which is clinically detectable as a visible or palpable swelling



* Malignancy, recent major surgery, prolonged immobilization, post-partum

WORK PROCESS	STANDARD	REQUIREMENT
1. Registration	• All patients seen should be registered in the standard registration book.	**Equipment:** • BP set • Stethoscope • Thermometer • Height / weighing scale • IV Set **Medication:** • Chlorpheniramine (when necessary) • Hydrocortisone
2. History Taking	**2.1 Present History** • Onset • Distribution and extent • Associated symptoms: shortness of breath, orthopnea, pain, fever • History of prolonged inactivity with the legs dependent. • Prolonged immobilization. • History of recent limb trauma. • Insect / snake bite • Last menstrual period if female • Symptoms of hypothyroidism eg lethargy, cold intolerance, increased weight. **2.2 Past Medical History** • Heart / lung / renal / liver disease • Diabetes mellitus • Hypertension • Malignancy • Recent major surgery • Filariasis **2.3 Drug History** • Calcium Channel Blocker (Nifedipine, Amlodipine, Felodipine etc) • NSAIDS • Corticosteroids, estrogen (HRT) • Traditional medication **2.4 Social History** • Alcohol • Smoking	
3. Physical Examination	**3.1. Physical Examination** • Confirm distribution of oedema: - generalized (limbs, facial, scrotal/sacral, ascites) - lower limbs (unilateral/ bilateral) - facial; periorbital/lips • Vital signs: BP, PR, RR, (temperature if necessary)	

WORK PROCESS	STANDARD	REQUIREMENT
	• General condition: tachypnoea, cyanosis, clubbing, pallor, jaundice, wasting. • Weight, height, BMI • If unilateral lower limb oedema, examine for: - limb tenderness, redness, increased warmth. - varicose veins - palpable thrombosed veins • Cardiovascular system • Lungs; reduced air-entry, crepitations • Abdomen; distension (ascites), palpable liver/mass • Rash/urticaria	**Equipment:** • BP set • Stethoscope • Thermometer • Height / weighing scale • IV Set **Medication:** • Chlorpheniramine (when necessary) • Hydrocortisone
4. Differential Diagnosis	**4.1 Generalized Oedema** • Cardiac failure • Renal failure • Hypoproteinemia: - malnutrition - chronic liver disease - nephrotic syndrome • Pre-eclampsia • Drugs eg nifedipine, estrogen • Idiopathic • Myxoedema **4.2. Localized oedema:** • Increased permeability of small blood vessels: - infection / cellulitis - trauma - allergy - stings • Lymphatic obstruction: - malignancy - filariasis • Venous obstruction / increased venous pressure: - deep vein thrombosis - external pressure - venous insufficiency	
5. Investigations	**5.1. Investigations** • UFEME • 24 hrs urine protein • FBC • RBS • ECG	

WORK PROCESS	STANDARD	REQUIREMENT
	5.2. Investigations may be ordered by MO: • Renal profile • Liver function test • CXR • Thyroid function test	**Equipment:** • BP set • Stethoscope • Thermometer • Height / weighing scale • IV Set **Medication:** • Chlorpheniramine (when necessary) • Hydrocortisone
6. Management	6.1. Treatment depends on the cause of oedema. 6.2. Anti-histamine eg Chlorpheniramine in cases diagnosed allergy / insect bite.	
7. Health Education	**Advice :** 7.1 Leg elevation 7.2 Wear support stocking for varicose vein 7.3 Reduce salt intake 7.4 Eat more potassium rich food eg. Carrot,soya bean, spinach & banana.	
8. Referral	**8.1. Criteria for urgent referral** Associated alarm symptoms/ signs: • Tachypnoea • Ill-looking • Severe pallor / anaemia • High BP • Generalised oedema / severe oedema • Proteinuria • History of snake bite • Pregnancy with BP > 140/90 or with symptoms of pre-eclampsia • Unilateral lower limb oedema with tenderness & redness • Trauma to limb with suspected close fracture **8.2. Non urgent referral** • Uncertain diagnosis / to confirm diagnosis; for further investigations & definitive treatment.	

References:

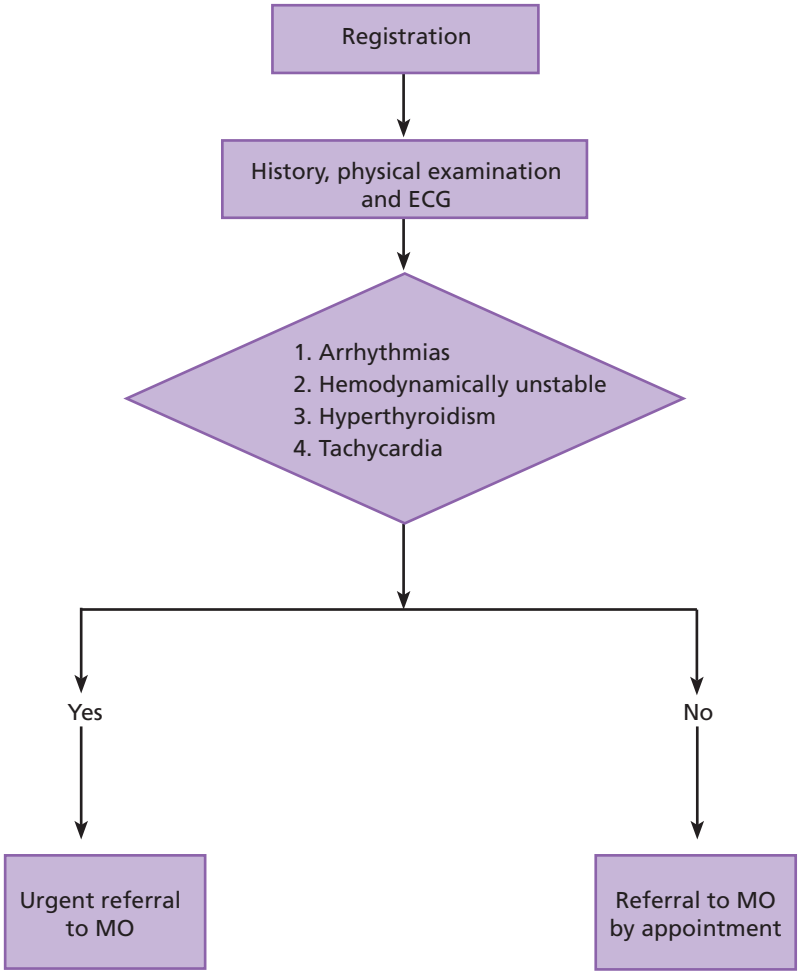
1. Goroll AH, Mulley AG. Primary Care Medicine, Office Evaluation and Management of the Adult Patient. Lippincott Williams and Wilkins 4th edition; 2000.
2. Prout BJ, Cooper JG. An Outline of Clinical Diagnosis. Wright 2nd edition
3. Beck ER, Francis JL, Souhami RL. Tutorials in Differential Diagnosis. Churchill Livingstone 3rd edition; 1992.

Palpitation

21

21. MANAGEMENT OF PATIENT WITH PALPITATION

Definition Of Palpitation : Awareness of the beating of the heart whether it is too slow, too fast, irregular or at its normal frequency



WORK PROCESS	STANDARD	REQUIREMENT
1. Registration	All patients should be registered in the standard registration book	**Equipment:** • BP set • Stethoscope • Thermometer • IV drip set • Oxygen set • Resuscitation set • Glucometer set • Haemoglobinometer • ECG machine **Drugs required depend on the cause of palpitation**
2. History Taking	**2.1. Presenting History** • Duration of palpitations • How long does each episode last • Frequency (daily, weekly, monthly) • Character (fast, slow, normal rate, regular or irregular) • How they start and stop (abruptly or not) • Any specific aggravating/ relieving factors • Whether associated with exertion **2.2. Associated Symptoms (during the palpitations)** • Dizziness • Syncope/near syncope (black-out) • Breathlessness • Chest pain/chest tightness • Sweating • Anxiety **2.3. Other Symptoms** • Appetite • Loss of weight • Bleeding • Diarrhoea / vomiting • Leg swelling • Reduced effort tolerance • Fever **2.4. Past History** • Heart disease (valvular / ischaemic / congenital) • Thyroid problems • Anaemia • Diabetes • Hypertension • Asthma • Anxiety / panic attacks • Any allergic reaction	

WORK PROCESS	STANDARD	REQUIREMENT
	2.4. Drug History • Current medications • Over the counter medications • Complementary and traditional medicine **2.6. Family History** • Thyroid problems • Heart disease • Psychiatric problems **2.7. Social History** • Smoking • Caffeine (tea/coffee) • Alcohol • Drug abuse • Stress (at work/home)	
3. Physical Examination	**3.1. General Examination** • Pulse rate/heart rate, rhythm, character • BP • Respiratory rate • Temperature • General condition; comfortable/anxious • Pallor • Hydration • Lymph nodes • Pedal oedema **3.2. Specific Examination** • Detailed cardiovascular examination - inspection - palpation - auscultation - percussion • Respiratory system • Abdomen; organ enlargement/ ascites • Thyroid enlargement	**Equipment:** • BP set • Stethoscope • Thermometer • IV drip set • Oxygen set • Resuscitation set • Glucometer set • Haemoglobinometer • ECG machine **Drugs required depend on the cause of palpitation**
4. Differential Diagnosis	**4.1. Arrhythmias** **4.2. Psychiatric causes:** • Anxiety disorder • Panic attack **4.3. Drugs and medications:** • Alcohol • Caffeine	

WORK PROCESS	STANDARD	REQUIREMENT
	• Certain prescription and over the counter medications (digoxin, phenothiazine, ventolin, Bricanyl) • Street drugs, cocain, tobacco **4.4. Non-arrhythmic cardiac causes** • Cardiomyopathy • Congenital heart disease • Congestive heart failure • Mitral valve prolapse • Valvular heart disease • Pericarditis **4.5. Extra-cardiac causes** • Anaemia • Electrolyte imbalance • Hyperthyroidism • Hypoglycaemia • Dehydration • Hypovolaemia • Pheochromocytoma • Pulmonary diseases • Vaso-vagal syndrome	**Equipment:** • BP set • Stethoscope • Thermometer • IV drip set • Oxygen set • Resuscitation set • Glucometer set • Haemoglobinometer • ECG machine **Drugs required depend on the cause of palpitation**
5. Investigations	5.1. ECG 5.2. Full blood count (anaemia or infection) 5.3. Blood glucose (suspected hypoglycaemia) **Further tests that may be ordered by doctor** 5.4. CXR (if cardiac condition suspected) 5.5. T4, TSH 5.6. Electrolytes (arrhythmia from electrolyte imbalance) 5.7. Stress test (palpitation with physical exertion and patients with suspected coronary artery disease) 5.8 Echocardiography; if suspected heart disease 5.9. Holter 24 hours ECG monitoring (those experiencing palpitations daily)	

WORK PROCESS	STANDARD	REQUIREMENT
6. Management	6.1. Treatment depends on the cause of palpitation 6.2. Treatment of fever, dehydration, anaemia	
7. Health Education	**General measures which may be helpful in the management of benign palpitations** • Abstain from tea, coffee, alcohol and smoking. • Avoid stressful situations that trigger palpitations. • Stress management; yoga, tai-chi or meditation	
8. Referral	• All patients need to be referred to MO for assessment	

References:

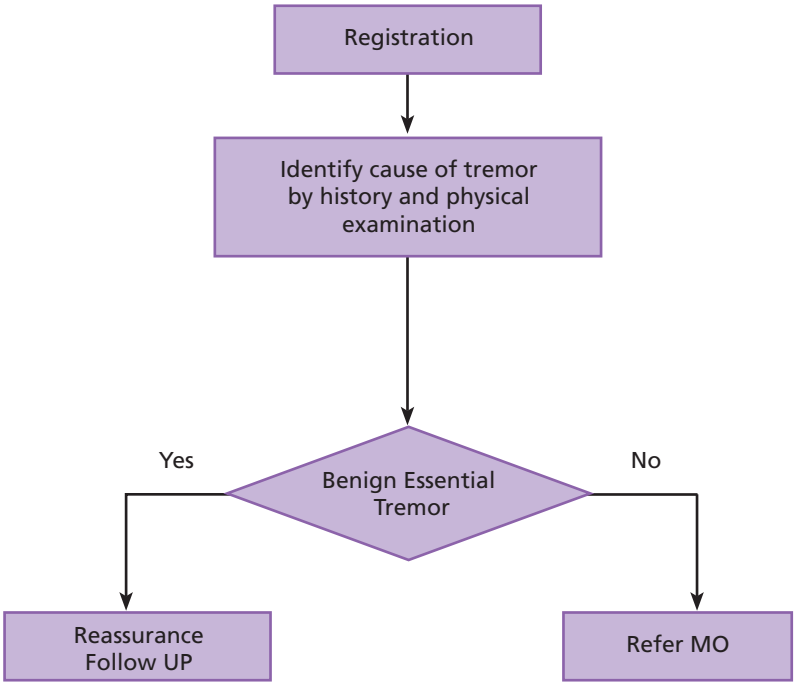
1. Abbott AV. Diagnostic Approach to Palpitations. American family Physician 2005; 743-750,755-756.
2. Wikipedia. Palpitation. http://en.wikipedia.org/wiki/Palpitation

Tremors

22

22. MANAGEMENT OF TREMORS

Definition of Tremors : An unintentional, somewhat rhythmic, muscle movement involving to-and-fro movements (oscillations) of one or more parts of the body



WORK PROCESS	STANDARD	REQUIREMENT
1. Registration	• All patients should be registered in the standard registration book	**Equipments:** • BP set • Stethoscope • Thermometer • Glucometer set • IV drip set • Weighing scale • Tendon hammer • Torch light **Drugs:** • Paracetamol (for fever)
2. History Taking	***Benign Essential Tremor is common (Refer to footnote)*** **2.1. Presenting History** • Duration of the tremors • Body parts involved/affected • The position of the body when the tremor occurs (at rest, doing specific task) • Aggravating and relieving factors • Character of the tremor • Progress of the tremor **2.2. Associated Symptoms** • Gait problems • Bradykinesia • Fever • Anxiety • irritability • Sweating **2.3. Other Symptoms** • Appetite • Loss of weight **2.4. Past History** • Thyroid problems • Neurological disease • Diabetes • Stroke • Injuries **2.5. Drug History** • Current medications **2.6. Family History** • Similar tremors • Neurologic disorders • Thyroid problems **2.7. Social History** • Caffeine • Smoking • Alcohol • Drug abuse • Stress	
3. Examination	**3.1. General examination** • Pulse rate • Temperature • Comfortable/anxious • Gait	

WORK PROCESS	STANDARD	REQUIREMENT
	3.2. Tremor • Site and character of the tremor • Rest tremor/intention tremor **3.3. Specific Examination** • Complete neurological examination • Thyroid enlargement • Abdominal examination	
4. Differential Diagnosis	4.1. Enhanced physiologic tremor: • Thyrotoxicosis • Pheochromocytoma • Hypoglycaemia • Emotional stress • Exercise • Medications 4.2. Essential tremors 4.3. Parkinsonian tremor 4.4. Cerebellar tremor 4.5. Mid-brain tremor 4.6. Drug-induced and toxic tremors: • alcohol • bronchodilators (eg. theophylline salbutamol) • caffeine • cyclosporine • heavy metals • lithium • metoclopramide (maxolon) • neuroleptics • nicotine • sympathomimetics • tricyclic anti-depressants • sodium valproate	**Equipments:** • BP set • Stethoscope • Thermometer • Glucometer set • IV drip set • Weighing scale • Tendon hammer • Torch light **Drugs:** • Paracetamol (for fever)
5. Investigation	5.1. Blood glucose 5.2. Thyroid function tests (T4, TSH) 5.3. Liver function tests	
6. Management	6.1. Treat underlying cause 6.2. Beta blockers (after discussion with doctor	
7. Health Education	7.1 Avoidance of caffeine 7.2 Management of stress/anxiety 7.3 Fall and injury prevention in elderly 7.4 Review medication eg. Oral Bronchodilator	
8. Referral	• All patients with tremors must be referred to MO for assessment	

Notes:

The features of essential tremor are:

By definition, essential tremor isn't caused by other diseases or conditions, although it's sometimes confused with Parkinson's disease. It can occur at any age, but is most common in older adults

Essential tremor can affect almost any part of your body, but the trembling occurs most often in your hands - especially when you try to do simple tasks, such as drinking a glass of water, tying your shoelaces, writing or shaving. You may also have trembling of your head, voice or arms.

Essential tremor symptoms:

- Begin gradually
- Worsen with movement
- Occur in the hands first, affecting one hand or both hands
- Can include a "yes-yes" or "no-no" motion of the head
- Are aggravated by emotional stress, fatigue, caffeine or extremes of temperature

Essential tremor vs. Parkinson's disease

Many people associate tremors with Parkinson's disease, but the two conditions differ in key ways:

- **When tremors occur.** Essential tremor of the hands typically occurs when your hands are in use. Tremors from Parkinson's are most prominent when your hands are at your sides or resting in your lap.
- **Associated conditions.** Essential tremor doesn't cause other health problems, whereas Parkinson's is associated with a stooped posture, slow movement and a shuffling gait.
- **Parts of body affected.** Essential tremor can involve your hands, head and voice. Tremors from Parkinson's typically affect your hands, but not your head or voice.

There is no specific test for essential tremor. Determining the diagnosis is often a matter of ruling out other conditions that could be causing your symptoms. To evaluate the tremor itself, you may be asked to:

- Drink from a glass
- Hold your arms outstretched
- Write
- Draw a spiral

References:

1. Smaga S. Tremor. American Family Physician 2003; 68: 1545-52
2. Cooper G. The many forms of tremor. Postgraduate Medicine 2000; 108 (1): 57-70
3. Wikipedia. Tremor. http://en.wikipedia.org/wiki/Tremor
4. Mayo Clinic. com

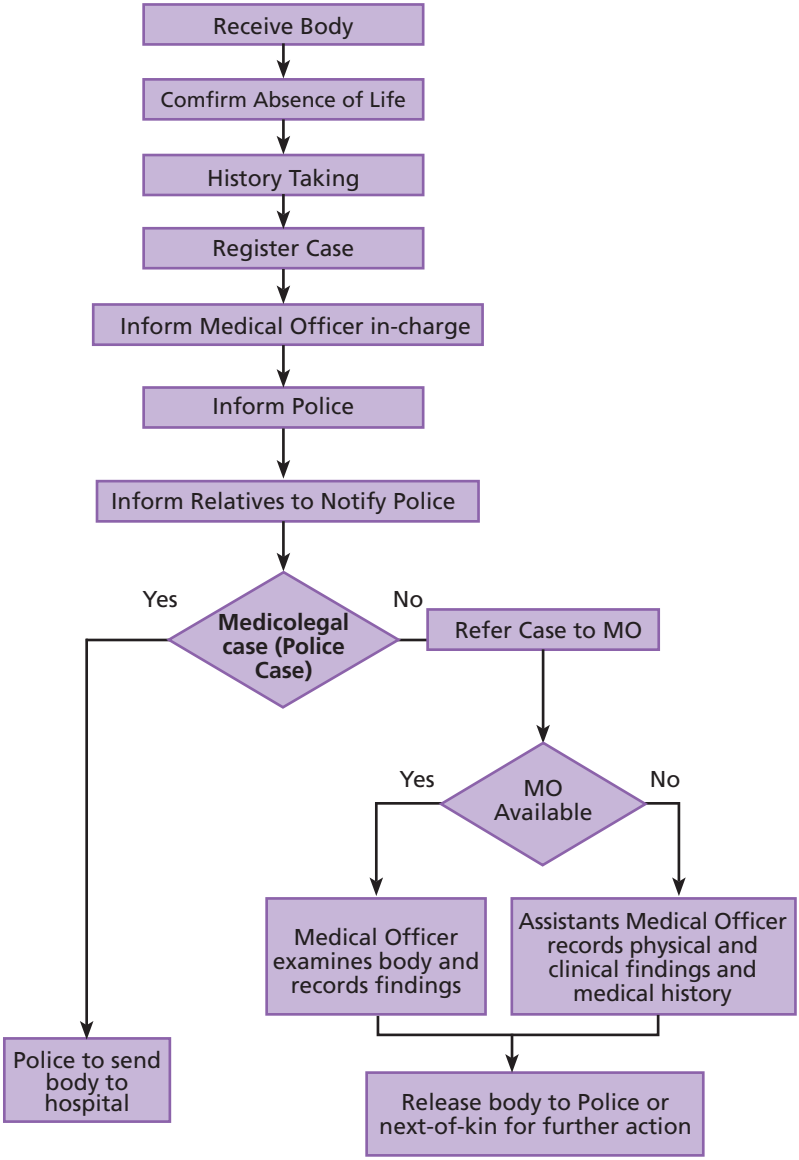




Case Brought In Dead (Bid)

23

23. MANAGEMENT OF CASE BROUGHT IN DEAD (BID)



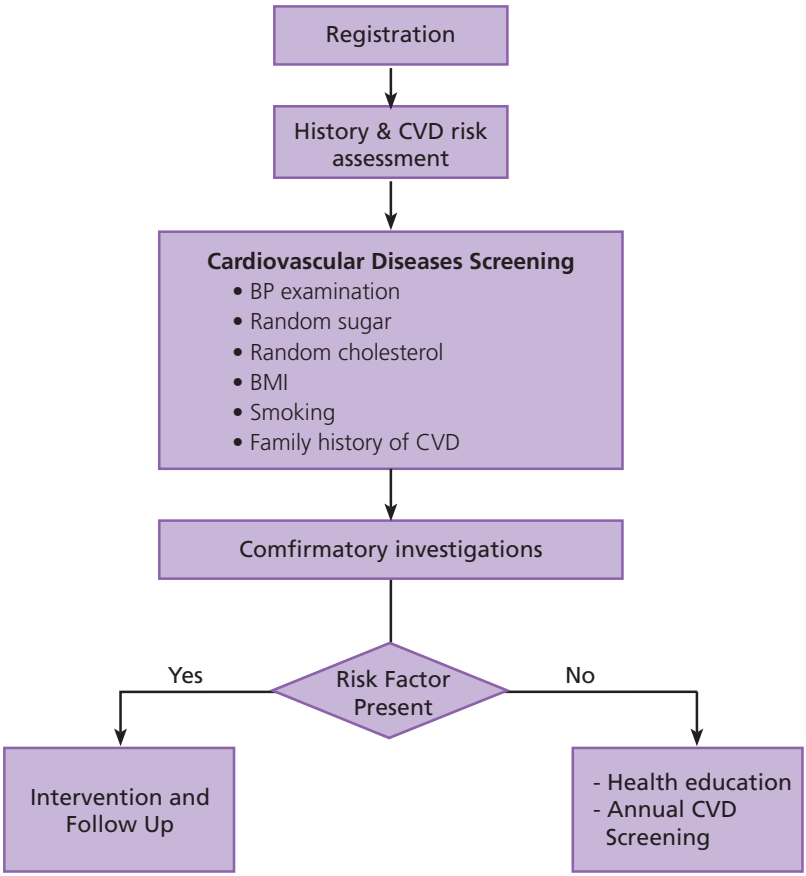
WORK PROCESS	STANDARD	REQUIREMENT
1. Receive Case	1.1. Examine the body for abnormalities/injuries. 1.2. Examine vital signs; • spontaneous breathing • pulse rate • heart sound • pupils reaction to light • BP • ECG if necessary	**Equipment:** • BP set • Stethoscope • ECG machine • Torch light **Documentation tools:** • BID Registration Book • Outpatient card Per 96 (Pin 1/78 • Pol.61 Pind.4/86)- brought by police
2. History Taking	Get history from the relatives/sender 2.1. History taking of incident/ accident 2.2. Medical history 2.3. Infectious disease 2.3. Medico-legal case	
3. Registration	3.1. Name 3.2. NRIC Number 3.3. Date of birth 3.4 Sex 3.5. Address 3.6. Next of kin/relative/sender 3.7. Telephone number	
4. Inform MO In-Charge	• Inform MO in-charge of the clinic	
5. Inform Police	• Inform the nearest police station and obtain advice. • Identify the receiver (particulars of police personnel) rank, police number.	
6. Inform Relatives	• Inform relatives/sender to make a police report and get burial permit from Police or Local Authoriy.	
7. Release Body to Police for Post Mortem	• Release body to police for post mortem once it is classified as police case.	

WORK PROCESS	STANDARD	REQUIREMENT
8. Examination by MO	• Where MO is available, the body must be examined by the MO. • Where MO is not available, the AMO records all the clinical findings and medical history in the card.	**Equipment:** • BP set • Stethoscope • ECG machine • Torch light **Documentation tools:** • BID Registration Book • Outpatient card Per 96 (Pin 1/78 • Pol.61 Pind.4/86)- brought by police
9. Inform Health Office	• Inform Health Office if infectious disease is suspected.	
10. Release body to police/next of kin	• Body shall be released to next of kin upon issuance of burial permit by the police or Local Authority. • Record all particulars related to the release of the body.	

Cardiovascular Disease (CDV) Screening

24

24. MANAGEMENT OF CARDIOVASCULAR DISEASE (CVD) SCREENING



WORK PROCESS	STANDARD	REQUIREMENT
1. Registration	• All patients should be registered in the standard registration book	**Equipment:** • BP set • Stethoscope • Weighing scale with height measurement • Measuring tape • Glucometer • Cholesterol-meter (eg. Accutrend GC) • Carbon monoxide breathlyser
2. History Taking	**2.1**. ***Epidemiological studies have identified the following major independent risk factors for CHD[1]. These include:*** • Cigarette smoking of any amount • Elevated total and LDL cholesterol • Elevated blood pressure • Low HDL cholesterol • Diabetes mellitus • Advancing age (> 45 years for men and > 55 years for women) **2.2. Arrange CVD screening for individuals at risk:** • Age (>35 years) • Obesity (BMI > 30 kg/m²) • Abdominal obesity - waist circumference, men ≥ 90 cm (35 inches) and women ≥ 80 cm (31 inches) Ref: WHO, 1998 • Family history of premature CHD (Male sibling or parent with CHD < 55 years and/or female parent or first degree relative with CHD < 65 years) • Smokers • Diabetes • Hypertension	
3. Physical Examination	3.1. General condition for signs of hypercholesterolaemia (xanthelasma, xanthomas) 3.2. Weight, Height, BMI and BP 3.3. Waist circumference 3.4. Waist:hip ratio 3.5. Cardiovascular examination	
4. Investigations	4.1 Fasting blood glucose 4.1. Full lipid profile 4.2. Renal profile 4.3. ECG	

WORK PROCESS	STANDARD	REQUIREMENT
5. Management	**Management of detected abnormalities** 5.1. Management of abnormal random glucose (Random sample > 5.6mmol/L) 5.2. Arrange for FBS/oral glucose tolerance test 5.3. If criteria met for diagnosis of DM, register as diabetic patient and manage accordingly [2] 5.4. Management of raised random total cholesterol 5.5. If level >5.2 mmol/l, arrange for fasting lipid profile and manage accordingly [3] 5.6. Management of hypertension (please refer to Malaysian CPG on management of hypertension) [4] 5.7. Management of tobacco dependence (smokers; please refer to Malaysian CPG on smoking cessation program) [5] 5.8. Management of Obesity(refer Malaysian CPG on management of Obesity) [6]	**Equipment:** • BP set • Stethoscope • Weighing scale with height measurement • Measuring tape • Glucometer • Cholesterol-meter (eg. Accutrend GC) • Carbon monoxide breathlyser
6. Health Education	6.1 Advise on Healthy Life Style.	
7. Referral	Criteria for referral is as listed in each clinical practice guidelines	

References:

1. Clinical Practice Guidelines on Acute Myocardial Infarction (2001)
2. 3rd Malaysian CPG on Management of DM (2004)
3. 3rd Consensus statement of management of Hyperlipidaemia (2003)
4. 2nd Clinical Practice Guidelines on the Management of Hypertension 2002
5. 1st Clinical Practice Guidelines on the Treatment of tobacco use and dependence 2003
6. 1st Clinical Practice Guidelines on the Management of Obesity 2003

GLOSSARY

=	Equal to
≥	Equal to or more
ABG	Arterial Blood Gases
AFB	Acid Fast Bacilli
AMO	Assistant Medical Officer
APH	Ante Partum Haemorrhage
ARV	Anti-Retroviral
BID	Brought In Dead
BMI	Body Mass Index
BP	Blood Pressure
CD4	Cluster of Differentiation 4
CD8	Cluster of Differentiation 8
C&S	Culture and Sensitivity
c/o	Complaint of
CHD	Chronic Heart Disease
CNS	Central Nervous System
CPG	Clinical Practice Guideline
CSOM	Chronic Suppurative Otitis Media
CVA	Cardio Vascular Accident
CXR	Chest X-ray
DM	Diabetes Mellitus
DVT	Deep Vein Thrombosis
ECG	Electrocardiography

eg	Example
ENT	Ear, Nose & Throat
ELISA	Enzyme Linked Immunosorbent Assay
ESR	Erythrocyte Sedimentation Rate
FB	Foreign Body
FBC	Full Blood Count
FBS	Fasting Blood Sugar
FEME	Full Examination and Microscopic Examination
FMS	Family Medicine Specialist
GA	General Anaesthesia
GXM	Group and Cross-match
HAART	Highly Active Antiretroviral Therapy
HBsAg	Hepatitis B Surface Antigen
HDL	High Density Lipoprotein
HDP	Hypertensive Disease in Pregnancy
Hep C Ag	Hepatitis C Virus Antigen
HIV	Human Immuno Deficiency Virus
H/O	History of
IgG	Immunoglobulin G
IM	Intra-muscular
IUGR	Intra Uterine Growth Retardation
IV	Intra Venous
IVD	Intra Venous Drip
Ix	Investigation
LDL	Low Density Lipoprotein

LFT	Liver Function Test
LSCS	Lower Segment Caesarian Section
MgSO4	Magnesium Sulphate
ml	Milliliter
mmHg	Millimeter Mercury
MO	Medical Officer
MMT	Methadone Maintenance Therapy
N/S	Normal Saline
NRIC	National Registration Identity Card
NSAID	Non Steroidal Anti Inflammatory Drug
NSEP	Needle Syringe Exchange Program
O&G	Obstetrics and Gynaecology
O2	Oxygen
OB	Occult Blood
OPD	Out Patient Department
PA	Particle Agglutination
PAP Smear	Papanicolaou Smear
PCP	Pneumocystis Pneumonia
PE	Pre-Eclampsia
PHN	Public Health Nurse
PIH	Pregnancy Induced Hypertension
PMH	Past Medical History
POA	Period of Ammenorrhoea
POC	Prouducts Of Conception
POG	Period of Gestation

PPH	Post Partum Haemorrhage
PR	Pulse Rate
PTB	Pulmonary Tuberculosis
PV	Per Vagina
RBS	Random Blood Sugar
RR	Respiratory Rate
SOP	Standard Operating Procedures
STI	Sexually Transmitted Infection
T4	Free Thyroxin
TB	Tuberculosis
TPHA	Treponema Pallidum Haemglutination
TRO	To Rule Out
TSH	Thyroid Stimulating Hormone
URTI	Upper Respiratory Tract Infections
VDRL	Venereal Disease Research Laboratory