INKOSI ALBERT LUTHULI CENTRAL HOSPITAL

SCOPE OF PRACTICE

AND

ENTRY & EXIT CRITERIA

PHASE 2

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ERECTUTET SEMMARY

REFERRAL OF PATIENTS TO IALCH

This is an updated version of the Entry and Exit Criteria, done by the Clinical Heads of Department in June/July 2006.

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This document has been updated in November 2014 Dr letebele Medical Manager IALCh November 2014

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PLASTIC & RECONSTRUCTIVE SURGERY

1. PLASTIC & RECONSTRUCTIVE SURGERY

2. PLASTIC SURGERY DEPARTMENT

1.1Scope of Practice

Below is the operation narrative for IALCH

- **Elective Theatre -** Two full day theatres
- > Day Theatre Two day theatres required per week.
- **General Outpatient Clinics -** Two per week from 08h00 to 12h00

> Specialised Clinics

The following specialised and combined clinics will be required. These are

- Craniofacial
- Cleft Clinic
- Head & Neck Clinic
- Oculoplastic
- Breast clinic
- Hand clinic
- Skin clinic

The above clinics will involve other disciplines and combined decision is required to decide on which day to hold these clinics.

- > Ward Rounds will be done on a daily basis. These are generally done in the morning.
- Emergency Theatres will be required when plastic surgery emergencies do arise including the trauma cases.

1.2. ENTRY CRITERIA

Patients with tertiary and quaternary plastic surgery conditions.

These include :

- 1. Craniofacial
- 2. Cleft lip and palate
- 3. Congenital deformities
- 4. Head and neck reconstruction
- 5. Lower limb reconstruction
- 6. Genitourinary
- 7. Hand injuries
- 8. Skin disorders and tumours
- 9. Trunk reconstruction
- 10. Microsurgery and replantation
- 11. Breast surgery
- 12. Advanced and problematic wounds

15. Vascular anomalies

16. Aesthetic surgery

2.3Exit criteria

Once the condition has been appropriately treated and the wounds healed, the patient can either be referred back to the referring hospital or sent to a step down facility within the Durban Metropolitan area. Appropriate follow up management will be instituted.

Written and updated by Prof. A. Madaree

CRANIO - FACIAL

2.CRANIO-FACIAL

2.1 Scope of Practice

Patients with craniofacial abnormalities.

2.2 Entry Criteria

Included are :

- 1. Congenital deformities eg craniosynostosis, encephalocoeles
- 2. Trauma complex cases
- 3. Tumours of the craniofacial area
- 4. Metabolic conditions eg Graves disease
- 5. Orthognathic surgery

2.3. Exit criteria

Once the condition has been appropriately treated and the wounds healed, the patient can either be referred back to the referring hospital or sent to a step down facility within the Durban Metropolitan area. Appropriate follow up management will be instituted.

Written and updated by Prof. A. Madaree

RHEUMATOLOGY

3. RHEUMATOLOGY

3.1 SCOPE OF PRACTICE

Rheumatology encompasses rheumatic diseases, which fall within four broad categories

- Connective Tissue Diseases
- > Arthritis
- Soft Tissue Rheumatism
- > Osteoporosis

3.2 ENTRY AND EXIT CRITERIA

Connective Tissue Diseases

Connective Tissue Diseases, which include systemic lupus erythematosus, scleroderma, polymyositis, mixed connective disease and systemic vasculitides. These are potentially serious diseases of young adults which affect multiple organ systems, have a significant morbidity and mortality and require multidisciplinary care and specialized investigations such as CT and MRI, immunosuppressive therapy and support facilities such as ICU and dialysis.

Entry Criteria

Patients with these diseases will be seen at IALCH for initial assessment to confirm diagnosis, assess severity and formulate a treatment plan.

Follow-up of patients will depend on severity and management required. Follow up varies between 1 -3 monthly to annually.

Exit Criteria

Patients with mild disease who do not require intensive immune-modulatory therapy

<u>Arthritis</u>

The spectrum of diseases includes rheumatoid arthritis, spondyloarthritis including ankylosing spondylitis, psoriatic arthritis, osteoarthritis of peripheral joints e.g. hips and knees, viral associated arthritis, juvenile idiopathic arthritis and gout.

Inflammatory Joint diseases e.g. rheumatoid arthritis, psoriatic arthritis, spondylo-arthritis and HIV Associated Arthritis

Entry Criteria

Initial evaluation to confirm the diagnosis; assess activity and severity of the disease and formulation of a management program

Patients with severe and active disease will need to be seen 1-3 monthly initially and then 6 monthly when stable.

Exit Criteria

Patients in remission or with low disease activity will be referred back to the District or Regional hospital and reviewed as necessary.

Osteoarthritis

Entry Criteria

Osteoarthirits which is progressive despite non-pharmacological and pharmacological measures *Exit Criteria*

Stable disease requiring symptomatic therapy and non-pharmacological measures

Refractory Gout

Entry Criteria

Patients with refractory gout despite conventional therapy, young age of onset, renal impairment and allopurinol hypersensitivity

Exit Criteria

Stable disease with a management plan requiring continuation of therapy and serial follow-up at District or Regional hospital

Soft tissue Rheumatism

Entry Criteria

Patients with fibromyalgia, shoulder pain, neck pain, backache and other soft tissue rheumatic syndromes, which are refractory to conventional measures.

Exit Criteria

Once the diagnosis is established and a management plan is formulated.

Osteoporosis

Entry Criteria

Patients with secondary osteoporosis based on risk factor analysis or a history on non-traumatic fractures

Exit Criteria

Once the diagnostic work-up has been completed and a treatment plan formulated. These patients may require to be seen every 1 to 3 years depending on their management.

<u>Summary</u>

Many of the rheumatic diseases referred to above represent chronic and long-term or even lifelong diseases.

The frequency of the visits will vary as follows:-

- (1) If mild or self-limited: referral back to source
- (2) If active or severe: regular follow-up to stabilize disease
- (3) Episodic course: will be referred back to source and seen periodically as necessary.

Written by Prof. G.M. Mody / Dr N. Patel

ORTHOPAEDICS

4. **ORTHOPAEDICS**

4.1 Scope of Orthopaedic Practice at IALCH:

1. Hip and Knee Unit

- a. Hip and Knee primary joint replacement
- b. Hip and Knee Revision joint replacement

c. Hip and Knee arthroscopy Unit: Mainly involved in reconstructive work of major joints including osteotomies, vascularised bone grafts, ligament augmentation for ACL/PCL etc.

2. Shoulder and Elbow Unit

- a. Shoulder and elbow primary joint replacement
- b. Shoulder and elbow revision joint replacement

c. Shoulder and elbow arthroscopy unit: Mainly involved in reconstructive work of major joints including osteotomies, acromioplasty, rotator cuff repairs, ligament augmentation for instabilities etc.

3. Hand Unit

- a. Brachial Plexus Reconstructive Surgery
- b. Tendon and nerve reconstructive surgery including nerve grafting procedures
- c. Digital Joint Arthroplasty

4. Bone Tumour Unit

- a. To cater for all primary bone tumours in KZN
- b. Will involve limb salvage procedures and custom arthroplasty

5. Paediatric Ortopaedic Unit

a. Complex orthopaedic reconstructive procedures

6. Major Trauma

- a. Pelvic fractures requiring surgical intervention
- b. Complex acetabular fractures requiring surgical intervention

4.2 Entry Criteria

- 1. All referrals to the clinic must be from Specialists only. Patients will need to be assessed at regional hospitals or private specialists prior to being given a booking at IALCH clinic. No self-referrals or referrals from general practitioners will be seen at the clinic.
- 2. Patients will be booked strictly to the relevant specialist clinic. As patients would have been assessed by an orthopaedic specialist, patients can be directed to the relevant specialist clinics accurately, for example patients with hip and knee pathology will be for the hip and knee clinic only.
- 3. No general clinic will be available at IALCH and all orthopaedic patients will need to be seen at a regional orthopaedic hospital initially.
- 4. No primary or fresh trauma will be seen at IALCH. Only complex trauma referred via a regional hospital will be treated.
- 5. Admissions will be strictly controlled. Admissions will be via the Consultant in the clinic or by prior arrangement with the consultant of the relevant clinic

4.3 Exit Criteria

Inpatients:

- **1.** Patients will remain at IALCH as long as tertiary or quaternary care is indicated. Patients undergoing primary arthroplasty are usually discharged home within 5 days.
- 2. Patients referred from a regional hospital will be returned to the regional hospital as soon as it is judged safe.
- **3.** Clairwood Hospital will be used as a step down facility for some of our patients.
- 4. Certain categories of patients will be admitted as day cases only. This will be encouraged.

Outpatients:

- **1.** Most Orthopaedic repeat outpatients are usually seen annually. Many of these will have had their arthroplasty operation and others will be put onto the waiting list at their first assessment.
- 2. They will need to be treated at their district/ regional hospital for their monthly medication supply. A list of clinics/ district and regional hospitals with available lists of drugs carried at that institution must be available for the system to work well.

Written and updated by Prof. I. Goga

VASCULAR

VASCULAR

5.1 Scope of Practice

The Durban Metropolitan Vascular Unit based primarily at IALCH offers a comprehensive service with various clinical conditions that have prescribed entry and exit criteria.

5.2 Entry Criteria & Exit Criteria

5.2.1 Thoracoabdominal aortic aneurysm and dissection prosthetic graft repair

Entry Criteria

Aortic aneurysms of \geq 5cm in transverse diameter

Symptomatic aneurysms

- ➤ associated pain
- thrombo-embolic complications
- recurrent urinary tract infections
 Aortic enteric fistula
 Leaking aneurysms
 Ruptured aneurysms
 Increase in diameter of > 1cm per year
 False aneurysms

Exit Criteria

Post aneurysm repair (stable and fit for transfer to referring hospital) Non-operative management: will need follow up

- Not fit for surgery
- Refused surgery
- Small aneurysms

Patients will need follow – up post aneurysm repair.

5.2.2 Endovascular aneurysm and dissection repair (evar) using stent – grafts (thoracic and abdominal)

Entry Criteria Similar to those for prosthetic graft repair High surgical risk for open prosthetic graft

Exit Criteria

Similar to those for prosthetic graft repair Patients need follow-up post repair.

5.2.3 Peripheral aneurysm prosthetic or vein repair

Entry Criteria

Aneurysm of any size

Aneurysm complications

- Compression of adjacent structures
- Thrombo embolic
- Infections
- > Rupture
- ➢ False aneurysm

Exit Criteria Post aneurysm repair (open or endovascular) Amputation for failed repair Revision of stump Refused treatment Patients need follow-up post repair

5.2.4 Balloon angioplasty +/- stent placement

Entry Criteria

Ilio-femoral significant stenosis with

- Disabling claudication
- ➢ Rest pain
- \succ Tissue loss
- Critical ischaemia

Exit Criteria Successful procedure Bypass surgery <u>+</u> amputation for failed procedure Patients need follow- up post procedure

5.2.5 Paediatric Vascular Surgery

Entry Criteria

All paediatric vascular trauma

Vascular reconstructive surgery

- A ortic arch \pm main branches
- \blacktriangleright Abdominal aorta <u>+</u> visceral arteries
- Renal artery stenosis / occlusion
 Acute limb occlusion

All forms of arteritis

Thoraco-abdominal and peripheral aneurysms

Exit Criteria Successful procedure (open or endovascular) Amputation + revisions Patients need follow-up post procedure

5.2.6 Renovascular Reconstruction (open or endovascular)

Entry Criteria

Uncontrolled hypertension Complications related to hypertension Renal dysfunction

Exit Criteria Improved hypertension control and renal function

5.2.7 Visceral Artery Reconstruction (open or endovascular) <u>Entry Criteria</u> Acute or chronic mesenteric ischaemia

Abdominal aortic stenosis / occlusion

Exit Criteria Successful procedure Patients need follow-up post procedure

5.2.8 Complex Vascular Trauma (open or endo-vascular including embolisation and stenting)

Entry Criteria Carotid arteries Vertebral artery Jugular veins Aortic arch Brachio – cephalic trunk Descending aorta Abdominal aorta and its branches Iliac arteries / veins Inferior venacava Femoro – popliteal vessels Tibio-peroneal vessels Subclavian arteries / veins Axillary arteries / veins **Brachial** arteries Radial / ulnar arteries

Exit Criteria

Successful repair Amputations for failed repairs or non-viable limbs Closure of fasciotomy Revision of stumps Other forms of trauma will need a multidisciplinary approach Patients need follow-up post procedure

5.2.9 Complex Venous Procedures (open or endovascular)

Entry Criteria Arterio-venous fistula repair Arterio-venous malformation repair Thrombectomy Inferior vena cava filter insertion Arterio-venous fistula creation Venous thrombolysis and stenting Varicose vein Deep vein pathology

Exit Criteria Successful procedure Patients need follow-up post procedure

5.2.10 Procedure – Peripheral bypasses using vein / prosthetic +/- limb amputation Entry Criteria All patients with critical limb ischaomia

All patients with critical limb ischaemia Most patients with acute limb ischaemia Incapacitating claudiction Failed medical therapy Failure of a previous bypass with critical or acute limb ischaemia Exit Criteria Uncomplicated arterial occlusion with mild to moderate claudication. Successful bypass Trail of medical therapy Refused surgery Poor anaesthetic risk

5.2.11 Procedure – Aorto-femeral / femoro – femoral / axillo – femoral bypass using Prosthetic graft +/- limb amputation

Entry Criteria Incapacitating claudication Rest pain Non-healing ulcers or wounds of lower limb or foot Gangerene or impending gangerene of the toes and foot Adjunct to infra-inguinal bypass

<u>Exit Criteria</u> Post – op bypass Claudication not interfering with work or lifestyle Co-morbid conditions Non-operative management

5.2.12 Procedure – Carotid Endarterectomy/stenting

Entry Criteria Transient ischaemic attack Stroke Amaurosis fugax Syncope / dizziness Asymptomatic Carotid Stenosis in a patient to undergo CABG Asymptomatic Carotid bruit Asymptomatic Carotid Stenosis

Exit Criteria Post – op Carotid Endarterectomy Non-operative management Not fit for surgery Refused surgery Non-significant stenosis Post angioplasty and stenting

<u>Shunting</u>: stump pressure >50 mmHg <u>Patches</u>: all redo stenosis, female ICA < 5mm

5.2.13 Procedure – Carotid Body Tumour Resection

<u>Entry Criteria</u> Neck Mass Dysphagia, hoarseness Transmitted pulsation, cranial nerve deficits

Exit Criteria Post – op tumour resection Locally advanced lesion Irresectable lesion Poor anaesthetic risk

5.2.14 Procedure – Aortic Arch Reconstruction (open or endovascular)

Entry Criteria

In the presence of appropriate lesions i.e. anterior cerebral ischaemia, posterior circulation ischaemia, global ischaemia or upper extremity ischaemic symptoms. Takayashu's Disease

<u>Exit Criteria</u> Post – op arch reconstruction Poor anaesthetic risk

5.2.15 Procedure – Thoracic outlet decompression

Entry Criteria Pain not responsive to conservative therapy Loss of limb function Venous thrombosis + compression Arterial embolism +/- arm ischaemia

<u>Exit Criteria</u> Successful decompression devoid of complications

5.2.16 Procedure – Thoracoscopic / Open sympathectomy

Entry Criteria

Sympathetic dystrophy Cold injury + vasospasms Irreparable arterial occlusion with hand ischaemia

Exit Criteria Post sympathectomy Co-morbid factors Severe pleural diseases Untreated hyperthyroidism

5.2.17 Procedure – Open / Laparoscopic Lumbar Sympathectomy

Entry Criteria Buergers Disease Post – traumatic causalgia Cold injury Non-reconstructable arterial occlusion

Exit Criteria Post – op devoid of complications

5.2.18 Procedure – Femoral, tibioperoneal and brachial embolectomy using balloon embolectomy catheters + on-table angiography +/- thrombolytic therapy, balloon angioplasty and stenting and remote endarterectomy and ring stripping

<u>Entry Criteria</u> Acute arterial occlusion Trauma Assess suitability for revascularisation + run-off

Exit Criteria Post – op with viable limb

5.2.19 Limb fasciotomy +/- secondary suture or skin grafting

<u>Entry Criteria</u> Compartment syndrome Prophylaxis Arteriovenous injuries Head + spinal injuries

Exit Criteria Post fasciotomy

5.2.20 Amputation Clinic

Entry Criteria Patient post limb ablation as an inpatient or outpatient

Exit Criteria Post assessment for rehabilitation

Written and updated by Dr B. Pillay

UROLOGY

6.1.Scope of Practice

The Urology department provides Urological service to all the patients in KZN under the following criteria;

6.2. Entry Criteria

The department of Urology at IALCH will accept any urological condition that cannot be managed in other hospital due to complicated nature of the procedure or associated comorbidity that put the patient in high risk for anaesthesia.

1.1 Interventional Uroradiologic procedures

• Transcatheter embolization

Arteriovenous fistulas Bleeding sites Tumours Ablation of renal function

- Percutaneous Endourology
- Perfusion studies and chemolysis of stones
- Stone Management
- Ureteropelvic stenosis
- Percutaneous biopsy and tumour management
 - Laparoscopic Urology
- Lower genitourinary procedures
 Fowler Stephens procedure
 Orchidopexy
- Evaluation of Intersex Patients
- Retroperitoneal lymphnode dissection
- □ Ablative bladder surgery
- Reconstructive bladder surgery
- Bladderneck suspension
- Renal ablative procedures
- Pyeloplasty
- Andrenalectomy
 - Retrograde instrumentation of the urinary tract
- Ureteral catheterization, stone management
- Tranurethral surgery
- Use of lasers (stones, issue resection)
 - Vesicoureteral reflux

Ureterovesicoplasty

- Urinary diversion
 - Bacterial infections

□ Acute pyelonephritis – urosepsis

Empleysematous pyelonephritis

- Extracorporeal shock wave lithotripsy for renal and ureteric stones
- Major injurues to the genitourinary tract including subsequent reconstructive

surgery.

• Cancers of the bladder, ureter, renal pelvis and all types of major uro-oncological

surgery.

• Neoplasm of the kidney

partial and radical nephrectomies

• Neoplasms of the prostate gland

Radical prostatectomy

Cryosurgery

Brachytherapy

- Genital tumours
- Urinary diversions bladder substitution (for malignant and non malignant disorders)
- Ileal conduit
- Jejunal conduit
- Colon conduit
- Continent urinary diversion
 - Urologic laser surgery (including stone and soft tissue surgery)
- External genitalia
- Urethra
- Prostate
- Bladder
- Ureter kidney
 - Adrenal gland surgery (benign and malignant)
 - Surgery for disorders of the ureter
- Ureterocele
- Ectopic ureter
- Obstruction of the ureteropelvic junction
- Obstructed mega-ureter
- Retroperitoneal fibrosis
 - Urinary incontinence and fistulas

MJ/Medical PA/Documentation/May 2003

- Hypospadiasis epispadias
- Peyronie disease
- Intersex disorders
- Female Incontinence, Bladder Dysfunction and Pelvic Reconstruction

Including bladder installations and neuromodulator

6.3. Exit Criteria

- Uncomplicated infection of the Urinary Tract
- Acute Pyelonephritis due to non-surgical causes
- Renal and perinephric Abscess
- Uncomplicated Cystitis
- Sexually transmitted diseases
- Gonoccal urethritis in men and women
- Nongonococcal urethritis in men and women
- Epididymitis
- □ infective genital ulcer
 - Other infections
- □ Fournier's Gangerine
- Periurethral abscess
- Scrotal abscess
- □ Acute bacterial protatitis with or without prostatic abscess
- Cutaneous Diseases of the male genitalia except malignancy
 - Reproductive function and dysfunction
- Vasectomy
- Hydrocelectomy
- Chronic orchialgia
 - Sexual function and dysfunction

□ Patients with erectile dysfunction unless specified in the entry criteria.

Written by Dr EH Abdel Goad

CARDIOLOGY

7.CARDIOLOGY

7.1Scope of Practice

The following recommendations are meant to promote the proper utilization of health care resources, a matter of particular interest for health care administrators and politicians with responsibilities for resource allocation. Guidelines can also be helpful in clarifying reasonable needs for diagnostic and therapeutic equipment, usage of intensive care beds and expensive medical devices.

While the Education Committee of SAHA has prepared SA guidelines via SAMA through the creation of Task Forces, we need to adapt these guidelines to our own practice given the constraints of the system in which we operate and at the same time consider the departments involvement in health economics and service delivery. We need to conduct policy meetings on important, sometimes controversial topics in the field of cardiovascular practice.

Already published guideline documents on cardiovascular disease are:

- Prevention of Coronary Heart Disease in Clinical Practice
- Diagnosis and Assessment of Heart Failure (1995)
- Management of Acute Myocardial Infarcation (1996)
- The Management of Stable Angina Pectoris (1997)
- The Treatment of Heart Failure (1997)
- The Burden of Cardiovascular Diseases (1997)

7.2.Adult Cardiology

Inpatient / Admission Entry Criteria (Adults)

All emergency admissions must be discussed with the consultant on call

- Patients requiring diagnostic cardiac catheterization
- Valvular heart disease requiring workup for cardiac surgery
- Congenital heart disease requiring workup for surgery.
- Ischaemic Heart Disease requiring emergency resuscitation/revascularisation
 - o post-myocardial infarction with post-infarct angina
 - o post-myocardial infarction in cardiogenic shock requiring intra-aortic balloon pump
- Catheter-based interventions: Percutaneous mitral valvuloplasty (PMV), Amplatzer, PCI,
- Patients requiring permanent pacemaker implantation.
- Uncontrolled arrhythmias requiring specialist supervised medical treatment or electrophysiological studies.
- Selected patients with pericardial, myocardial or endocardial disease requiring special investigations, e.g. hypertrophic obstructive cardiomyopathy (HOCM), arrhythmogenic right ventricular dysplasia for biopsy, infiltrative myocardial disease, constrictive pericarditis.
- Transplant assessment workup.
- Patients presenting with acute myocardial infarction within 12 hours of chest pain
- Ill cardiac patients requiring stabilization

Inpatient Exit Criteria (Adults)

Upon discharge these patients will be followed up by the referral hospital/doctor:

- All planned investigations completed and a satisfactory diagnosis and management plan has been made, provided no immediate intervention or surgery anticipated.
- Post catheterisation / intervention patients in stable and satisfactory condition.
- Post-operative patients in stable and satisfactory condition.

Cardiac Clinic - Entry Criteria (Adults)

- Referrals from specialist or level 2/3 hospitals
- Rheumatic heart disease requiring surgery.
- Adult congenital heart disease.
- Uncontrolled arrhythmias.
- Investigation of syncope after initial evaluation.
- 2nd degree or 3rd degree heart block
- Ischaemic heart disease requiring diagnostic coronary angiography.
- Left ventricular dysfunction for assessment for biventricular pacing/transplant
- Initial post-operative follow-up.
- Post PCI /BMV follow-up

Selected patients requiring further specialist follow-up and intervention or surgery will be called back for outpatient follow-up.

Cardiac Clinic - Exit Criteria (Adults)

Upon discharge from cardiac clinic these patients will be followed up by the referral hospital/doctor:

- Patients that do not have any cardiac problem or with minor problems that do not require further investigation
- Certain post-operative patients after initial follow-up considered to be "cured".
- Patients with prosthetic valves for routine follow-up, including INR check and anticoagulation therapy.
- Patients with extremely complex cardiac conditions considered "inoperable".
- Patients with stable angina (not for surgery), patients with angina with normal coronary arteries, and those with angina who have vessels considered to be suboptimal for grafting.
- Asymptomatic valvular heart disease not requiring surgery.

SPECIFIC ADMISSION CRITERIA

A. PATIENT with STABLE coronary heart disease

- CCS III/IV angina on medical treatment
- Regardless of severity of angina if high risk stress test ie
- 1. 1 mm ST depression within 3 minutes of exercise
- 2. Extensive territory of ischaemia within 6 minutes of exercise
- 3. Haemodynamic instability (i.e. fall in BP with exercise)
- 4. Development of VT.

- Angina (any class) with LV dysfunction (EF <45%)
- Young patient (< 50 years) with previous myocardial infarction
- Suspected subacute stent thrombosis after PCI.
- Recurrent angina within 6-9 months of PCI.
- Recurrent angina within 12 months of CABG
- Resuscitation from sudden cardiac death

B. Acute Coronary Syndrome

- Unstable angina (angina at rest)
- Non st elevation MI (NSTEMI) i.e. angina with positive troponin
- ST elevation MI (STEMI)
 - if unsuitable for fibrinolysis within 12 hours of onset of chest pain
 - anterior MI, too late for thrombolysis (>12 hrs) and ongoing pain.
 - anterior MI, given fibrinolytic, but no reperfusion.
 - complications such as VSD, CCF, or haemodynamic instability following MI
 - recurrence of angina before discharge
 - patients who within 36 hrs of acute STEMI, develop cardiogenic shock.

C. Valvular Heart Disease

- Percutaneous mitral valvuloplasty (PMV) symptomatic with mitral valve area < 1,5 cm²
- MVR symptomatic on medical therapy, with preserved LV function (EF > 40%)
- AVR Any symptoms related to significant aortic stenosis or regurgitation.
- TVR uncontrolled right heart failure

D. Congenital Heart Disease

Any symptomatic patient

E. Pacemaker

- Any HR < 40 bpm
- Symptomatic $2^{nd}/3^{rd}$ degree heart block with HR > 40 bpm
- At least NYHA class II symptoms in a patient with CCF and LBBB

F. Transplant

• CCF, at least NYHA class II symptoms on medical treatment, with good social circumstances.

H. Electrophysiological studies.

- Patients with symptomatic palpitations and structurally normal hearts
- Patients with WPW and uncontrolled symptoms
- Uncontrolled supraventricular tachycardia including atrial fibrillation
- Patients with ventricular tachycardia for investigation Patients at high risk for sudden cardiac death who may qualify for implantable defibrillators

Written and updated by Prof D.P.Naidoo

CARDIO-THORACIC SURGERY

8.1 Scope of Practice

Cardiothoracic Surgery is comprised of 3 broad categories: general thoracic surgery, cardiac surgery for acquired heart disease, and cardiac surgery for congenital heart disease. Patients who require elective cardiac surgery are initially assessed by the Department of Cardiology at Greys and IALCH (adult and paediatric), and subsequently presented to the Department of Cardiothoracic Surgery and when accepted for elective surgery are scheduled for surgery. For those patients who have diseases of the chest, not of cardiac origin, the department serves as a tertiary referral center with the vast majority of patients admitted via the (open)remove Thoracic Surgery clinic.Emergency cardiac or thoracic surgery patients are discussed directly with the Registrar and consulant on call.

8.2 General Thoracic Surgery

Patients fall into 3 categories

- Seen only as outpatients, with written recommendations made to the referring physican
- Admitted via the Thoracic Surgery clinic for inpatient investigations and treatment
- Admitted as an emergency, in consultation with the on-call team.

Thoracic Surgery clinic

Patient's who are seen only as outpatients are returned to the referring physician with a letter recommending further investigations and treatment that can be undertaken at the referral source. Patients who are admitted are assessed in the ward by a registrar, notes made on a customized proforma and base line investigations undertaken. Specialised investigations are undertaken in consultation with the consultant. Further evaluation may include a minor procedure e.g. aspiration cytology, bronchoscopy, thoracoscopy, etc with or without general anaesthesia or major surgery e.g. thoracotomy for lung resection.

<u>Entry Criteria – General Thoracic</u>

<u>Surgerv</u>

All patients with diseases of the chest, which may be:

- Of the chest wall origin, macroscopically visible with or without underlying pleural or lung disease. The aetiology may be congenital, inflammatory or neoplastic.
- Pleural disease which may affect directly the visceral or parietal pleura or occur in the pleural space e.g. a mesothelioma or an undiagnosed serous pleural effusion, respectively.
- Disease of **pulmonary** origin which may radiologically represent an isolated opacity, a lobar or segmental shadow or contain one of many diffuse pulmonary patterns e.g. mottling, miliary, nodular, reticular or honeycombing representing the spectrum of diffuse pulmonary disease.
- Major airway and bronchi these patients may present with stridor due to intratracheal tumours, post-intubation strictures or foreign bodies in the airway.
- Mediastinum those patients with an abnormal mediastinal silhouette are usually referred directly to the Department of Thoracic Surgery for further evaluation. The abnormality may represent a mediastinal cyst or tumour of vascular origin.
- Suspected or proven **oesophageal** disease especially carcinoma.
- Less commonly diseases of the **diaphragm**.

 \succ The **sequelae of thoracic trauma** e.g. a clotted haemothorax or disorganized pleural space, false aneurysm of the thoracic aorta or its branches, diaphragmatic hernias, etc.

The above categories of patients are usually referred for thoracic surgical opinion via the

Thoracic Surgery clinic.

<u>Exit Criteria – General Thoracic</u> <u>Surgery</u>

Patients generally fall into 2 categories:

 \succ Those who have minor diagnostic investigations with or without a general anaesthetic.

These patients are discharged within a day or two.

Those who have major thoracic surgery e.g. a thoracotomy. Following an uncomplicated short ICUand/High Care stay, the patient is returned to the ward for convalescence and when ambulant, clinically well with a satisfactory radiograph, is returned to source or discharged home depending on the circumstances.

8.3 Cardiac Surgery

Following referral from the Department of Cardiology (adult & paediatric) to the Department of Cardiothoracic Surgery, these patients are usually admitted a day before their scheduled surgery. Basic investigations, including a chest radiograph, are made and the patient is consented by the surgeon undertaking the operation. These operations may be on the **cardiac valves** e.g. mitral valve repair / replacement, aortic valve replacement or coronary artery bypass grafting for **coronary insufficiency**. For congenital heart disease, the condition may be totally corrected e.g. ASD, VSD, Tetralogy of Fallot or palliated e.g. a modified Blalock – Taussig shunt for inadequate blood flow for conditions that lead to this situation. In general, surgery on the heart may be undertaken with or without the facility of cardiopulmonary bypass.

<u>Entry and Exit Criteria – Cardiac</u>

Surgerv

All patients who have undergone cardiac operations are managed post-operatively in the ICU

for a day or two, transferred to the High Care Unit for intensive monitoring for 24 hours and subsequently returned to the ward for convalescence. An uneventful stay is usually about 5 days in duration.

8.4 Thoracic Patients to the ICU

Entry Criteria for Thoracic Patients to the ICU

 \succ All patients undergoing thoracic surgery that require post-op ventilation, haemodynamic

support or monitoring that cannot be provided in a High Care ward require admissions to the ICU. This may include pre-op patients.

Exit Criteria for Thoracic Patients to the

ICU

 \succ Patients who are stable off the ventilator and whose treatment and monitoring can be

performed in the High Care ward or Thoracic ward may be discharged from the

ICU.

Patients whose medical condition is such that further ICU stay will not be of benefit may be discharged so that they do not deprive another patient of the bed.

8.5 Thoracic Surgical Patients to the High Care Wards

Entry Criteria for Thoracic Surgical Patients to the High Care Wards

> Patients who require pre- or post-op invasive or continuous non-invasive monitoring and

treatment or who require treatment that cannot be provided in the Thoracic Surgical

Wards may be admitted to the High Care Wards.

Exit Criteria for Thoracic Surgical Patients to the High Care Wards

 \succ Patients whose medical condition is such that further medical treatment is considered not

to be of benefit to the patient may be discharged so that they do not deprive another patient of the bed.

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