Introduction

1) These Levels of Care Guidelines are intended to help practitioners referring patients to institutions or within institutions to decide to which level of care the patient should most appropriately be consigned.

2) These Levels of Care Guidelines refer not to final diagnosis but to presenting clinical problems. They are categorized according to medical subspecialty.

3) In general, District Level care is that which will be provided by a General Practitioner; Regional Level care is that which will be provided by a General Specialist; Tertiary Level care is that which will be provided by a Subspecialist.

4) Northdale Hospital is District Level
   Edendale Hospital is District Level and Regional Level
   Greys Hospital is Regional Level and Tertiary Level

5) These Levels of Care Guidelines are intended as guidelines only and not as absolute rules. If there is doubt about the appropriate level of care for a particular patient, telephonic consultation with the receiving institution or department is recommended.

6) The compilers of these Guidelines will welcome feedback from practitioners as to the composition and content of the Guidelines. It is our intention that they be constantly updated and revised.

7) These Guidelines emanate from the Pietermaritzburg Department of Medicine. It is our intention that they be used in the Tertiary Referral Area of Greys Hospital (ie the interior of the Province of Kwazulu/Natal).

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**Cardiology:**

**District:**
- Angina pectoris stable
- Angina pectoris unstable
- Congestive heart failure
- Cor Pulmonale
- Heart murmur/valvular heart disease follow up
- Hypertension
- Hypertension defaulted treatment
- Myocardial infarction uncomplicated
- Venous thrombosis legs
- Visceral chest pain

**Regional:**
- Atrial fibrillation
- Congestive heart failure unresponsive
- Hypertension for investigation
- Hypertension on treatment with poor control
- Hypertension with more than 3 drugs
- Hypertension with complications
- Ischaemic heart disease known with prolonged chest pain (>30min)
- Pericarditis
- Pregnant cardiac
- Pulmonary embolism
- Rheumatic Fever
- Venous thrombosis arms
- Venous thrombosis relapse on treatment

**Tertiary:**
- Arrhythmias uncontrolled
- Cardiac catheterization
- Congestive heart failure intractable
- Coronary stent placement
- Heart murmur/valvular heart disease undiagnosed
- Intra-aortic balloon pump
- Ischaemic heart disease evaluation
- Myocardial infarction complicated
- Pericarditis/pericardial effusion requiring investigation
- Pacemaker permanent
- Pacemaker transvenous
- Pulmonary embolism with haemodynamic compromise
**Endocrinology and Metabolism:**

<table>
<thead>
<tr>
<th><strong>District</strong></th>
<th><strong>Regional</strong></th>
<th><strong>Tertiary</strong></th>
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</thead>
<tbody>
<tr>
<td>Diabetes mellitus type 2</td>
<td>Diabetes mellitus type 1</td>
<td>Addison’s</td>
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<tr>
<td>Diabetic defaulted treatment</td>
<td>Diabetes mellitus with poor control</td>
<td>Cushing’s</td>
</tr>
<tr>
<td>Hyperlipidaemia follow up</td>
<td>Diabetic coma</td>
<td>Congenital endocrine disorders</td>
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<tr>
<td></td>
<td>Hyperlipidaemia</td>
<td>Hyperlipidaemia refractory</td>
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<td></td>
<td>Hyperthyroidism</td>
<td>Parathyroid disorders</td>
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<td></td>
<td>Hypothyroidism</td>
<td>Pituitary disorders</td>
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<tr>
<td></td>
<td>Osteoporosis/osteopaenia</td>
<td>Polycystic ovarian syndrome</td>
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<td>Porphyria</td>
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<td>Sex hormone disorders</td>
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</tbody>
</table>
### Gastro-enterology:

#### District
- Acute Gastro-enteritis
- Cirrhosis/Portal hypertension/Ascites
- Dysentery
- Dyspepsia undiagnosed
- Jaundice

#### Regional
- Diarrhoea chronic
- Dyspepsia unresponsive
- Gastrointestinal bleeding for stabilization/investigation
- Hepatomegaly
- Jaundice obstructive
- Jaundice with TB treatment
- Liver abscess for aspiration
- Liver biopsy
- Peptic ulcer

#### Tertiary
- Chronic hepatitis
- Chronic pancreatitis
- Diarrhoea intractable
- Dyspepsia intractable
- Endoscopy
- Inflammatory bowel disease
- Jaundice intractable
- Laparoscopy
- Splenomegaly massive
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<tr>
<th><strong>Haematology:</strong></th>
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<tr>
<td><strong>District:</strong></td>
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<tr>
<td>Anaemia</td>
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<tr>
<td>Anticoagulant monitoring</td>
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<tr>
<td><strong>Regional:</strong></td>
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<tr>
<td>Anaemia unresponsive to haematinics</td>
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<tr>
<td>Bleeding disorders</td>
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<tr>
<td>Haemophilia</td>
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<tr>
<td>Idiopathic thrombocytopenic purpura (ITP)</td>
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<tr>
<td>Pancytopenia</td>
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<tr>
<td>Polycythaemia secondary</td>
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<tr>
<td><strong>Tertiary:</strong></td>
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<tr>
<td>Eosinophilic syndromes</td>
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<tr>
<td>Haemoglobinopathies</td>
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<tr>
<td>Leukaemia and other haematologic malignancies</td>
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<tr>
<td>Myelodysplastic syndromes</td>
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<tr>
<td>Myelofibrosis</td>
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<tr>
<td>Pancytopenia – intractable</td>
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<tr>
<td>Polycythaemia rubra vera</td>
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<tr>
<td>Thrombotic thrombocytopenic purpura (TTP)</td>
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# Infectious Diseases:

## District
- AIDS terminal care
- ARV Rollout
- ARV complications benign
- Cellulitis
- HZV
- TB lymphadenitis (including abdominal)
- TB pulmonary
- TB old with productive cough
- Malaria uncomplicated
- Meningitis uncomplicated
- Pneumonia community acquired

## Regional
- ARV complications requiring regimen change
- ARV failure
- ARV treatment with IRIS
- Cryptococcosis
- HZV generalised
- HZV ophthalmic
- HZV multidermatomal
- Infective endocarditis
- TB abdomen (not lymphadenitis)
- TB in pregnancy
- Toxoplasmosis
- Meningitis complicated
- Pneumonia complicated

## Tertiary
- Antimicrobial therapy consultation on complex problems
- ARV complications life-threatening
- ARV failure requiring designer regimens
- ARV treatment with IRIS life-threatening
- Fever of unknown origin
- Infectious diseases consultation
- Malaria complicated
- Opportunistic infections uncommon manifestations
- Sepsis in hospitalised patients
**Other:**

<table>
<thead>
<tr>
<th>District</th>
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<tbody>
<tr>
<td>Drug overdose uncomplicated</td>
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<td>Psychiatric disorders for assessment/admission after hours</td>
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<table>
<thead>
<tr>
<th>Regional</th>
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<tbody>
<tr>
<td>Drug overdose complicated</td>
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<tr>
<td>Generalised oedema of uncertain cause</td>
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<tr>
<td>Pregnancy with medical disorders</td>
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</tbody>
</table>
### Nephrology:

**District**
- Cystitis
- Pyelonephritis
- Renal failure chronic, conservative management

**Regional**
- Haemodialysis
- Peritoneal dialysis
- Renal biopsy workup
- Renal failure acute and chronic

**Tertiary**
- Glomerulonephritis
- Haematuria chronic
- Nephrotic syndrome
- Polycystic kidney disease
- Renal biopsy
- Renal failure assessment for Dialysis Program
- Renal failure in pregnancy
**Neurology:**

**District**
- Cerebral damage diagnosed irreversible
- Intoxication/stupor, not deteriorating
- Epilepsy first episode
- Epilepsy on maintenance treatment
- Epileptic defaulted treatment
- Stroke (diagnosed)

**Regional**
- Dementia initial investigation
- Deteriorating level of consciousness/coma
- Epilepsy Clinic
- Epileptic in pregnancy
- Epilepsy status
- Guillain-Barre syndrome
- Headache unresponsive
- Headache localising signs
- Paraparesis/Paraplegia
- Hemiparesis/hemiplegia undiagnosed
- Sub-arachnoid haemorrhage
- TIA

**Tertiary**
- Ataxia undiagnosed
- Brain stem pathology
- Cerebellar disorders
- Cranial nerve palsies
- Encephalopathy undiagnosed
- Epilepsy uncontrolled
- Focal CNS pathology undiagnosed
- Headache intractable
- Movement disorders
- Myasthenia and related disorders
- Myopathies
- Neuropathies for investigation
- Spinal cord pathology
- Syncope for investigation
- Parkinsonism
**Pulmonology:**

**District**
- Asthma hospitalisation
- Asthma maintenance therapy
- Chronic bronchitis
- COPD
- Emphysema
- Fine needle biopsy of lymph node(s)
- Pleural effusion
- Pneumothorax
- Pneumonia community acquired

**Regional**
- Asthma maintenance therapy with oral steroids
- Asthma status
- Bronchiectasis
- Carcinoma suspected
- Empyema thoracis
- Haemoptysis gross or persistent
- Pneumothorax with bronchopleural fistula or surgical emphysema
- Pneumonia refractory

**Tertiary**
- Bronchoscopy
- Fine needle biopsy of lung
- Occupational lung disease
- Interstitial lung disease fibrotic/infiltrative
- Intractable pneumonia
**Rheumatology:**

**District**
- Osteoarthritis

**Regional**
- Gout
- Rheumatoid arthritis

**Tertiary**
- Collagen vascular diseases
- Chronic polyarthritis
  - Gout unresponsive
- Polyarthritis acute
- Polymyositis/dermatomyositis
- SLE – Regional
- Vasculitides