LAKES DISTRICT HEALTH BOARD

**Lakes District Health Board**
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27 May 2020

Amy Van Wey Lovatt

E mail: fyi-request-12108-26ab0a13@requests.fyi.org.nz

Dear Amy

**Subject: Official Information Act request Re: Consumers Rights & Physicians Obligations.**

Thank you for your request for information under the Official Information Act received by Lakes DHB on 1 May 2020. You have asked for:

***Request 1:***
***I respectfully request a copy of each referral pathway for each region in New Zealand.***

On 11 May, Lakes DHB asked you to clarify your request as per below.

***I would like to seek some initial clarification on your Request 1 please. Are you wishing the Lakes DHB referral pathway for Endocrine Societies Guidelines for testing for hyper aldosteronism or are you wishing a copy of every referral pathway that Lakes DHB has in place. Obviously the latter would be a major exercise for us and there may be an associated cost to source this information.***

We have not heard back from you so have proceeded on the basis of how we have interpreted your request. As noted above there is not one referral pathway, rather the clinical overview depends on the condition.

Please see attached the referral guidelines for endocrinology which Lakes DHB follows. It provides guidelines for referral to specialist endocrinology services. When that referral is received the endocrinologist will decide what needs to be done and whether the person may need to be referred to a tertiary service.

Copies of referral pathways are available to all GPs in their clinics and we have a GP Liaison person who makes sure GPs know and understand the correct referral pathways.

Please note we may publish this letter and enclosed documents (with your personal information removed) on Lakes DHB's website.

**Yours sincerely**

**Nick Saville-Wood**
**Chief Executive**
**Cc: sectoroias@moh.govt.nz**

# ENDOCRINOLOGY

## National Referral Guidelines

| NATIONAL REFERRAL GUIDELINES : ENDOCRINOLOGY | | | |
|---|---|---|---|
| **Diagnosis/Symptomatology** | **Evaluation** | **Management Options** | **Referral Guidelines** |
| The following diagnoses or symptoms are considered under Endocrinology: It should be recognised that this is not an exhaustive list of conditions that may be seen by an Endocrine service.<br>• Adrenal Insufficiency<br>• Carcinoid Syndrome<br>• Cushings Syndrome (cortisol excess)<br>• Galactorrhoea<br>• Goitre/Thyroid Enlargement<br>• Hirsutism<br>• Hypercalcaemia<br>• Hypertension<br>• Hypocalcaemia<br>• Hypoglycaemia<br>• Hypogonadism<br>• Hyponatraemia<br>• Osteoporosis and Metabolic Bone Disease<br>• Paget's Disease<br>• Pituitary Disorders – Hyperprolactinaemia<br>• Polydipsia/Polyuria<br>• Thyroid nodule<br>• Thyrotoxicosis | Standard history and examination.<br>Key points and appropriate investigations are indicated below: | Management options essentially depend on established diagnoses. | Referral guidelines are provided to clarify the primary/secondary interface. In some instances they will promote understanding between General specialist and Endocrinology specialist services as well. |

***Note:*** *These national referral recommendations have been prepared to provide guidelines for referral to specialist endocrinology services. They should be regarded as examples or guidelines for referring health professionals and are not an exhaustive list. The referring health professional should ensure that in using these national referral recommendations generally accepted clinical practice should be properly taken into account. If there is a conflict between the national referral recommendations and generally accepted clinical practice, then generally accepted practice should prevail. If in doubt please phone your local endcrinologist*

# ENDOCRINOLOGY

## National Referral Guidelines

| NATIONAL REFERRAL GUIDELINES : ENDOCRINOLOGY | | | |
|---|---|---|---|
| **Diagnosis** | **Evaluation** | **Management Options** | **Referral Guidelines** |
| **ADRENAL INSUFFICIENCY**<br>*Note the following:*<br>• Any early morning cortisol level < 300 is suspicious.<br>• Hyponatraemia<br>• Consider in association with other autoimmune disease, e.g. Thyroiditis, Hashimoto's, Pernicious anaemia, other Endocrine disease.<br>• Also in association with previous TB, HIV. | **Key Points:**<br>• Patients with history of repeated courses of steroids should be regarded with suspicion for secondary Adrenal Insufficiency.<br>• Check for symptoms of weight loss, muscle fatigue, weakness, postural hypotension and in particular nausea, vomiting, unexplained anaemia or fever.<br>• Assess standing and lying blood pressure.<br>• Check weight and look for skin hyper-pigmentation.<br>**Investigations:**<br>• Sodium<br>• Creatinine<br>• Potassium<br>• Glucose<br>• Blood count<br>• TFTs<br>• early morning cortisol<br>• Short synacthen test (discuss with endocrinologist). | • Patients on long term steroids or within 3 months of discontinuation will require increase in steroids or recommencement in times of illness. | • All cases of suspected Primary Adrenal Insufficiency should be seen by an Endocrinologist. Refer category 1 or 2 depending on clinical context. |
| **CARCINOID SYNDROME** | **Key Points:**<br>• Intermittent flushing<br>• Diarrhoea<br>• Wheeze/shortness of breath.<br>**Investigations:**<br>• Twenty four hour urine 5HIAA<br>• Creatinine | • Discuss with Endocrinologist. | • Refer all patients with elevated 5HIAA to an Endocrinologist - category 3. |
| **GALACTORRHOEA**<br>(Note: Galactorrhoea is considered abnormal at 6 months post cessation of lactation.) | Refer to Hirsutism/ Hyperprolactinaemia evaluations.<br>Check Prolactin assessment, TFTs and current medication. | Measure prolactin if elevated refer<br>If normal reassure. | • Endocrine Galactorrhoea should be discussed with General Physician/ Endocrinologist. |

# NATIONAL REFERRAL GUIDELINES : ENDOCRINOLOGY

| Diagnosis | Evaluation | Management Options | Referral Guidelines |
|---|---|---|---|
| **GOITRE/THYROID ENLARGEMENT** | **Key Points:**<br>• ? General enlargement<br>• ? Unilateral enlargement<br>• ? Solitary nodule [see separate RG ]<br>• Family history of thyroid disease/carcinoma<br>• Presence of symptoms e.g. dyspnoea, dysphagia, hoarseness of voice, change in size of gland, tenderness.<br>**Investigations:**<br>• Antithyroid antibodies<br>• Thyroid function tests (TFTs) | • Treat hypo/ hyperthyroidism medically in the first instance.<br>• Any concerns discuss with General Physician Endocrinologist | • If Euthyroid - refer all cases if symptoms or increase in size - category 2 if there is a possibility of malignancy, otherwise category 3. |
| **HIRSUTISM** | **Key Points:**<br>• Assess history of frontal hair loss, increased hair growth and sites of hair growth, acne or increased oiliness of skin.<br>• Menstrual history and change in menstrual cycle should be noticed.<br>• Assess weight and blood pressure.<br>• Assess rate of development.<br>• Consider steroid excess<br>**Investigations:**<br>• Total Testosterone,<br>• If there is menstrual irregularity Prolactin, LH, FSH, SHBG and TFTs. | • Discuss with Endocrinologist.<br>• Trial of oral contraceptive pill or Diane 35 for six months.<br>• An anti-androgen e.g. Aldactone. | • All patients with an elevated testosterone (> 5) nmol/L or signs of virilisation or rapid hirsutism require semi-urgent referral – category 2. All other patients with significant Hirsutism should be referred – category 3. |
| **HYPERCALCAEMIA** | **Key Points:**<br>• Polyuria/dehydration confusion<br>• Renal stones<br>• Constipation<br>• Exclude drugs such as Vitamin D with Calcium as a cause of Hypercalcaemia<br>**Investigations:**<br>• Serum calcium, phosphorus<br>• Sodium, potassium<br>• Parathyroid hormone<br>• 24 hour urine calcium and creatinine<br>*Note: Adjusted serum calcium should ideally be repeated – fasting and uncuffed specimen.* | • Discuss with Endocrinologist management. | • Patients with modest evaluation of calcium require referral category 3 unless symptomatic - then category 1.<br>• If the serum calcium is > 3.0mol/L - urgent category 1 referral is required.<br>• Refer cases of Hypercalcaemia associated with malignancy to appropriate specialty e.g. General Medicine/ Oncology, etc as required. |

| NATIONAL REFERRAL GUIDELINES : ENDOCRINOLOGY | | | |
|---|---|---|---|
| **Diagnosis** | **Evaluation** | **Management Options** | **Referral Guidelines** |
| **HYPERCORTISOLISM/ CUSHINGS DISEASE**<br>(Cortisol excess) | • If clinically suspected Cushings syndrome<br>**Investigations:**<br>• 24 hour urine free cortisol<br>• 1mg dexamethasone suppression test | | • Refer where there is clinical suspicion with significant biochemistry abnormalities - category 1. Otherwise discuss with General Physician/ Endocrinologist. |
| **ENDOCRINE HYPERTENSION**<br>[Note : hypertension referral guideline in cardiology ] | **Key Points:**<br>• The endocrine causes should be considered in young adults i.e. under the age 50yrs with hypertension or refractory to conventional therapies. All patients with a history of episodic hypertension or a history of palpations, perspiration, tremor and headache.<br>• A low plasma potassium is also of importance and features that might suggest Cushing's Disease and/or Conn's Syndrome should be considered.<br>**Investigations:**<br>• Sodium. potassium Creatinine<br>• 24 hour urine catecholamines preferably at time of symptoms.<br>• Consider aldosterone / renin ratio | • Avoid Beta Blockers if phaeochromocytoma is suspected. | • All cases of suspected Endocrine Hypertension should be referred. The urgency depends on the associated finding. |
| **HYPOCALCAEMIA** | **Key Points:**<br>• Diet<br>• Evidence of malabsorption/renal disease<br>• Medication<br>• Previous neck surgery<br>**Investigations:**<br>• Serum calcium, phosphorus, magnesium<br>• Alkaline phosphatase<br>• Sodium, potassium<br>• Parathyroid hormone<br>• Vitamin D<br>• (If Malabsorption is considered - will require other biochemistry. See Gastroenterology Referral Guidelines) | • Correct definable causes where possible. | • All patients should be referred for investigation and treatment – category 3. |

## NATIONAL REFERRAL GUIDELINES : ENDOCRINOLOGY

| Diagnosis | Evaluation | Management Options | Referral Guidelines |
|---|---|---|---|
| **HYPOGLYCAEMIA** | History of fasting hypoglycaemia<br>**Investigations:**<br>• Should include if possible, a laboratory glucose taken at the time of symptomatology. [Note a capillary blood glucose is not appropriate ]<br>• Glucose tolerance tests are not helpful but exclusion of overt diabetes history is useful.<br>• Urea + electrolytes<br>• LFTs<br>• Plasma insulin at time of hypoglycaemia (if possible) | • If post prandial hypoglycaemia is a possibility, dietetic review may prove useful.<br>• Fasting hypoglycaemia should be referred | • Unexplained symptoms or features of hypoglycaemia (glucose < 3.0 mmol/L) require referral - category 2. |
| **HYPOGONADISM**<br>(c.f. Paediatric Medicine Referral Guidelines) | **Key Points:**<br>• Paediatric hypogonadism - refer Paediatric Referral Guidelines.<br>• Adult hypogonadism:<br>- Infertility<br>- Primary/secondary Amenorrhoea<br>- Erectile dysfunction<br>- Failure to develop secondary sex characteristics<br>**Investigations:**<br>• Oestradiol/testosterone levels<br>• Gonodotrophins (FSH/LH)<br>• Prolactin if low gonadotrophins<br>Discuss chromosome studies with an Endocrinologist. | | • Establish hypogonadism - refer category 3.<br>**Note:** Secondary hypogonadism, FSH/LH are low in conjunction with low oestradiol/testosterone - consider pituitary causes (see Pituitary Referral Guidelines). |
| **HYPONATRAEMIA**<br>(usually a referral from a General Physician to Endocrinologist) | **Key Points:**<br>• Heart disease, renal/liver disease<br>• Concomitant thyroid/adrenal insufficiency<br>• Concurrent medical illness<br>• Current medication, e.g. Diuretics<br>**Investigations:**<br>• Urea and electrolytes<br>• LFTs<br>• TFTs<br>• early morning Cortisol<br>• Urine Na, osmolality<br>• Plasma osmolality | • Discuss with Endocrinologist. | • Refer symptomatic Hyponatraemia or unexplained hyponatraemia (Na < 125) - category 2.<br>• Patients hyponatraemia with neurological symptoms - refer for admission - category 1.<br>• Persistent unexplained hyponatraemia <125 – 135 , category 3 |

## NATIONAL REFERRAL GUIDELINES : ENDOCRINOLOGY

| Diagnosis | Evaluation | Management Options | Referral Guidelines |
|---|---|---|---|
| **OSTEOPOROSIS AND METABOLIC BONE DISEASE**<br><br>Note: Core Services Report | **Key Points:**<br>• Any history of steroid use should be checked and quantitated.<br>• Family history<br>• Height, weight, check for alcohol excess or cigarette smoking<br>• Any history of intolerance to dairy products<br>• Any history of fractures should be noted.<br>• Also any history of renal calculus.<br>**Investigations:**<br>• DEXA scan (bone density)<br>• CBC + ESR<br>• U+E, calcium, phosphorus<br>• Alkaline phosphatase<br>• TFTs<br>• Oestradiol/testosterone as relevant<br>• Consider Vitamin D | • Uncomplicated osteoporosis can be treated in general practice with hormone replacement therapy, if appropriate or alternative regimen such as cyclic didronel therapy. Bone density measurements should not be repeated more often than once a year and often can be extended to two or three yearly reviews.<br>• Rocaltrol (Calcitriol) may be considered in steroid induced osteoporosis.<br>• Consider Alendronate (specialist only)<br>***Note:*** *For osteoporosis risk assessment, diagnosis and management, bone density measurement is recommended.*<br>Suspected vitamin D deficiency e.g. in Asian immigrants and institutionalised elderly should be treated rather than investigated. | • All cases of males and premenopausal women with documented Osteoporosis should be referred - category 3.<br>• Any suspicion of Osteomalacia should be referred - category 3.<br>• Insufficient gains in bone mass despite intervention - refer category 3.<br>• Recurrent fractures despite bone sparing therapy – category 3. |
| **PAGET'S DISEASE** | **KEY POINTS:**<br>• Bone pain. Progressive bone deformity. Hearing loss or heart failure.<br>• Investigations:<br>• Serum calcium, phosphorus<br>• Sodium, potassium<br>• Creatinine<br>• Alkaline phosphatase<br>• Consider Vitamin D<br>Plain x-ray film of areas of concern. | • Discuss with Endocrinologist/ Rheumatologist re clinical concerns.<br>• Consider Alendronate | • All patients with Paget's Disease complicated by pain or deformity- category 2.<br>• Fracture, neurological deficits or heart failure should be referred for management - category 1.<br>• Refer rising alkaline phosphatase – category 2. |

| NATIONAL REFERRAL GUIDELINES : ENDOCRINOLOGY | | | |
|---|---|---|---|
| **Diagnosis** | **Evaluation** | **Management Options** | **Referral Guidelines** |
| **PITUITARY DISORDERS - HYPERPROLACTINAEMIA ACROMEGALY** | **Key Points:**<br>· Check for a history of headache.<br>· Postural faintness, loss of periods, features of Hypogonadism.<br>· Assess visual fields<br>· Check for galactorrhoea<br>· Look for postural hypotension<br>· 1°/2° infertility?<br>· Evaluate concurrent medications, e.g. Antiemetics, Oral contraceptives, Phenothiazines, Narcotics.<br>· check for large feet & hands, sweating, coarse facial features, hirsutism, prognathism, macroglossin<br>**Investigations:**<br>• Total testosterone in males<br>• Free T4, TSH<br>• 0900 cortisol<br>• Prolactin<br>• Electrolytes<br>• Glucose<br>• LH , FSH<br>• Oestradiol in women<br>• 1GF-1, prolactin<br>Note: Key presentation of pituitary disorders is with a mass lesion or with defined syndromes such as:<br>(i) amenorrhoea/ galactorrhoea<br>(ii) hyponatremia/ SIADH or<br>(iii) low free T4 + normal TSH as well as chronic fatigue | • If serum prolactin is < 2 x upper limit of normal simply repeat in the first instance.<br>• Any persistent elevation should be discussed with an endocrinologist<br>• A minor persistent prolactin elevation due to pituitary stalk compression can be with large non-functioning pituitary tumours. Therefore a CT or MRI scan is usually indicated in consultation with an Endocrinologist | • All cases of suspected pituitary disorder should be referred to an Endocrinologist - category 2 or 3.<br>• Patients with a headache visual disturbance and raised prolactin level should be discussed with General Physician/Endocrinologist (depending on local access). |
| **POLYDIPSIA AND POLYURIA** | **Key Points:**<br>• Assess the degree of urine output. Frequency of urination and presence of nocturnal urination.<br>• History of headaches, altered vision is also of importance or a prior history of head injury.<br>• History of lithium use<br>**Investigations:**<br>• Glucose<br>• Calcium<br>• TFTs<br>• Sodium potassium<br>• Creatinine<br>• Twenty four hour urine volume and total creatinine.<br>• Prolactin | • Discuss with Endocrinologist. | • All cases of suspected polydipsia/polyuria require General Medical/Endocrine referral.<br>• The urgency depends on the severity of the symptoms. |

| NATIONAL REFERRAL GUIDELINES : ENDOCRINOLOGY | | | |
|---|---|---|---|
| **Diagnosis** | **Evaluation** | **Management Options** | **Referral Guidelines** |
| **THYROID NODULE (SOLITARY)** | • Family history of thyroid disease/carcinoma<br>• Presence of symptoms eg dyspnoea, dysphagia, hoarseness of voice<br>**Investigations :**<br>• Antithyroid antibodies<br>• TFTs<br>• Scintgraphy if TSH is suppressed<br>• Consider U/S<br>• Consider FNA | Refer all cases | • Refer to an endocrinologist, category 2 |
| **THYROTOXICOSIS** | ***Obvious Graves' disease***<br>Diffuse goitre, bruit, eye signs, high TFTs (> 2 x normal), clear-cut Sx and signs. FT4, FT3, TSH, anti-thyroid Abs, CBC all concordant. | Begin Carbimazole 15 mg BID.<br>Refer to endocrinologist | To discuss or have elective radioiodine therapy. |
| | ***Odd or discrepant TFTs or subclinical hyperthyroidism***<br>(TSH < 0.05, FT4 normal) | Patients with unexpected odd tests x2 over one month or more may benefit from referral. | |
| | ***Amiodarone hyperthyroidism.***<br>Patients on amiodarone should have 3 monthly TSH as guide to impending dysfunction in 10-15%.<br>IF TSH suppressed (< 0.05) begin carbimazole 10 mg daily. | Continue lithium....If ventricular tachyarrhthymia, continue amiodarone, add carbimazole 20 mg tid, monitor fortnightly.<br>May take 2 -3 months to reach euthyroid status. Long-term therapy with amiodarone + carbimazole + thyroxine may be required. | Refer at diagnosis to both cardiologist and endocrinologist. |
| **Transgender**<br>(Female - Male) | No evidence for extra benefit from Cyproterone. | Premarin 5 - 10mg daily. | Referral not necessary |