SFHFT Endocrine Referral Advice

This document provides clinical referral advice for Endocrinology problems. It is for use in Mid Notts CCGs by Primary Care.

This advice is designed to optimize patients care before Outpatient attendance and reduces the need for follow up appointments.

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This document will be reviewed by the Endocrinology consultant team and updated.

Service Notes

Subfertility or hirsutism plus menstrual disorders may need to be referred directly to the gynaecologist depending on the nature of their presentation.

Please always supply information on any medications given in the last three months that may elevate prolactin (consulting BNF if necessary).

- A 9.00am cortisol < 100 nmol/L consider urgent.
- Prolactin > 3000 mU/L consider urgent.

If in doubt regarding referrals for non-urgent conditions please use the E-RS advice service.For urgent advice contact the consultant on hot week 0900-1700 Monday to Friday by telephone via consultant connect or hospital switchboard. For emergencies such as Calcium > 3 mmol/l and Addisonian Crisis please contact the emergency department and refer urgently.

Problem	Guidance	Useful Information / Pre-Referral checklist / MDS	Refer to	Patient Resources
Clinical Hyperthyroidism (fT4 and/or fT3 raised, TSH suppressed)	See guidance at: https://cks.nice.org.uk/hyperthyroidism RCP recommendation (1995) to refer to secondary care endocrine service for assessment and management plan	MDS: Latest TFT, TPO antibodies. If overt hyperthyroidism is confirmed start treatment as follows whilst arranging endocrine referral: • fT4 20-30 pmol/l CBZ 10mg daily • fT4 30-50 pmol/l CBZ 20mg daily • fT4 > 50 pmol/l CBZ 40mg daily Standard advice re sore throats. Consider propranolol 20-40mg tds if very symptomatic and no contraindications.	Routine referral to Endocrinology at KMH or NH	http://www.btf-thyroid.org/information/leaflets
Subclinical hyperthyroidism (fT4, fT3 normal, TSH below normal or suppressed)	See guidance at: https://cks.nice.org.uk/hyperthyroidism Check TPO antibodies. Repeat TFT in 3-6 mths, and consider referral if results unchanged. Treatment may be considered in patients if the TSH is ≤ 0.1 mU/L, if they are 65 yrs or older, are at risk of osteoporosis or have cardiac risk factors.	MDS: 2 sets of TFT with consistent features of subclinical hyperthyroidism, TPO antibodies. No indication to start antithyroid drug therapy before referral.	Routine referral to Endocrinology at KMH or NH	http://www.btf-thyroid.org/information/leaflets
Clinical hypothyroidism (fT4/fT3 low, TSH raised)	See guidance at: https://cks.nice.org.uk/hypothyroidism Usually autoimmune (Hashimoto's thyroiditis) or following thyroidectomy or radioactive iodine therapy.	Check TPO antibodies. Thyroid US scan not required. Referral not indicated. Start treatment with thyroxine and titrate dose every 4-6 weeks until TSH normalised. Check TPO antibodies.	Not indicated	http://www.btf-thyroid.org/information/leaflets

Subclinical hypothyroidism (fT4/fT3 normal, TSH raised)	See guidance at: https://cks.nice.org.uk/hypothyroidism Check TPO antibodies – if positive 2-3% per annum chance of developing overt hypothyroidism. Repeat TFT in 3 mths and consider trial of thyroxine in symptomatic patients or patients with TSH of 10 or more even if not symptomatic. Especially if TPO antibodies positive.	Referral not indicated	Not indicated	http://www.btf-thyroid.org/information/leaflets
Enlarged Thyroid gland (goitre)	See guidance at: https://www.nhs.uk/conditions/goitre/ Check TSH – if raised see section on hypothyroidism above. If normal or suppressed see attached guidance.	MDS: TSH, TPO antibodies. No need for thyroid US scan prior to referral. US and FNA will be considered after referral.	If TSH normal refer to: • Mr Keshna Nigam or, • Mr Irfan Akhtar. Endocrine Surgeon at KMH or NH under specialty surgery. Clinic type: Endocrine Surgery. If TSH suppressed routine referral to endocrinology at KMH or NH.	https://www.nhs.uk/conditions/goitre/
Male Hypogonadism	See guidance at: http://www.gpnotebook.co.uk/simplepage.cfm?ID=604373051 Symptoms of altered libido, fatigue and erectile dysfunction.	If Testosterone is low and LH/FSH are raised: • MDS - nil else required. If Testosterone is low and LH/FSH are normal or low:	Routine referral to Endocrinology at KMH or NH.	https://www.nhs.uk/conditions/male-menopause/

	Requires assessment of hypothalamic pituitary gonadal axis. Blood testosterone (8.30-9.00am fasting sample) as initial screen. If testosterone is below normal **repeat** with addition of LH and FSH hormones to help determine if there is primary or secondary gonadal failure.	• MDS - Morning (8.30-9.00am) blood tests for testosterone, SHBG, LH, FSH, prolactin, TSH, fT4, fT3, cortisol and ferritin.		
Gynaecomastia	See Nottinghamshire APC investigation and treatment guidelines at: http://www.nottsapc.nhs.uk/search?k=gynaecomastia	Referral if endocrine screening is abnormal.	Routine referral to Endocrinology at KMH	https://www.nhs.uk/chq/Pages/885.aspx?CategoryID=61
Primary amenorrhoea	See guidance at: https://cks.nice.org.uk/amenorrhoea Initial screening tests: oestradiol, LH, FSH, prolactin, thyroid function. Refer if screening tests are out of range.	MDS: screening blood test results	Routine referral to Endocrinology at KMH	https://patient.info/doctor/amenorrhoea
Secondary amenorrhoea	See guidance at: https://cks.nice.org.uk/amenorrhoea Initial screening tests: oestradiol, testosterone, SHBG, LH, FSH, prolactin, thyroid function. Refer if screening tests are out of range.	MDS: screening blood test results	Routine referral to Endocrinology at KMH. Please refer to the menopause clinic in young patients with a history of premature menopause.	https://patient.info/doctor/amenorrhoea

Raised prolactin	See guidance at: https://www.pituitary.org.uk/information/pituitary-conditions/prolactinoma/ Common presenting symptoms: • Females: oligo or amenorrhoea, galactorrhoea, infertility. • Males: Reduced libido, erectile dysfunction. If prolactin is raised but less than 1000 mU/l then repeat at least twice more – only refer is sustained increase is documented.	MDS: U&E, TFT, prolactin, drug history,	Routine referral to Endocrinology at KMH	https://patient.info/health/prolactinoma
Suspected Cushing's syndrome	See guidance at: https://www.nhs.uk/conditions/cushings-syndrome/ Rare disorder. Morning cortisol blood tests are of no use in screening. Request either, 24hr urine collection for urine free cortisol **or** Overnight dexamethasone suppression test (1mg tablet of dexamethasone taken at 11.00pm with a blood test for cortisol between 8.30 and 9am the following morning – CS unlikely if cortisol < 50 nmol/l). Refer if screening tests are out of range or a high clinical suspicion, but normal screening tests (cyclical Cushing's may need to be excluded).	MDS: Results of screening tests and history of any prescribed steroid therapy (inhalers, steroid creams, oral steroids).	Routine referral to Endocrinology at KMH.	https://patient.info/doctor/cushings-syndrome-pro

Suspected acromegaly	See guidance at: https://www.nhs.uk/conditions/acromegaly/ Rare disorder. Screening if clinical suspicion – 09.00am blood test U+E, HBA1c, thyroid function tests, HGH and IGF1. Refer if screening tests are out of range.	MDS: Results of screening tests.	Routine referral to Endocrinology at KMH.	https://www.nhs.uk/conditions/acromegaly/
Pituitary tumour incidentally detected in CT or MRI	See guidance at: https://www.evidence.nhs.uk/Search?om=[{%22ety%22:[%22Guidance%22]}]&q=PITUITARY+INCEDENTALOMA Biochemical screening: 0900 blood tests: Prolactin, TSH, FT4, FT3, IGF-1. 24hr urine collection for urine free cortisol **or** Overnight dexamethasone suppression test (1mg tablet of dexamethasone taken at 11.00pm with a blood test for cortisol between 8.30 and 9am the following morning).	MDS: radiology report, screening tests.	Routine referral to Endocrinology at KMH.	https://patient.info/doctor/pituitary-tumours
Suspected phaeo chromocytoma	See guidance at: https://www.nhs.uk/conditions/phaeochromocytoma/ Suspect in patients with hypertension, episodic sweats and palpitations or at risk due to genetic condition.	MDS: 24 hr urine screening test results.	Routine referral to Endocrinology at KMH or NH.	https://patient.info/doctor/phaeochromocytoma-pro

	Screening – 2 by 24 hour collections for urinary Metanephrines (acid preserved collection bottle).			
Suspected Addison's disease	See guidance at: https://cks.nice.org.uk/addisons-disease Suspect in patients with fatigue, generalised skin pigmentation, postural hypotension and hyponatraemia and hyperkalaemia.		If severe symptoms (vomiting, hypotension) or severe electrolyte imbalance, refer immediately to the emergency department. Otherwise, urgent referral to Endocrinology at KMH or NH.	https://www.nhs.uk/conditions/Addisons-disease/
Adrenal 'incidentaloma'	Adrenal mass noted on a CT or MRI abdominal scan. Lesions with *all of the following features* are considered benign: • Well-defined, homogeneous lesions AND • Diameter <4cm AND • Pre- or non-contrast CT density <10 HU or lipid-rich on MRI AND • No extra-adrenal extension	MDS: U&E, overnight dexamethasone suppression test if confident to do this (see suspected Cushing's syndrome for details), 24hr urine collection for Metanephrines.	Routine referral to Endocrinology at KMH or NH	
Suspected (non-diabetic) hypoglycaemia	See guidance at: http://bestpractice.bmj.com/topics/en-gb/509 Remember Whipple's triad (insulinoma): • Symptoms known or likely to be caused by hypoglycemia especially after fasting or heavy exercise. • A low plasma glucose	MDS: At least 2 fasting laboratory glucose results confirming hypoglycaemia.	Urgent referral to Endocrinology at KMH or NH if confirmed lab glucose below 3 mmol/l.	https://patient.info/doctor/hypoglycaemia

	measured at the time of the symptoms. • Relief of symptoms when the glucose is raised to normal. Do not rely on capillary glucose measurements to make a diagnosis of hypoglycaemia. Request fasting glucose samples (8 hr fast) on at least 2 (ideally 3) separate occasions. If symptoms occur between meals but not with fasting or overnight, consider reactive hypoglycaemia – diagnosed with extended 5hr 75gOGTT.			
Hypercalcaemia	See guidance at: https://cks.nice.org.uk/hypercalcaemia Main differential diagnosis is primary hyperparathyroidism or malignancy. PTH will be raised in the former, and suppressed in the latter.	MDS: FBC, U&E, TFT, LFT calcium & phosphate, vitamin D, PTH, myeloma screen.	If unwell, refer IMMEDIATELY to Emergency Department. Urgent referral if serum calcium > 3 mmol/l. Routine referral if serum calcium is 2.6-3 mmol/l.	https://www.nhs.uk/conditions/hyperparathyroidism/
Hypocalcaemia	Common causes: vitamin D insufficiency, low calcium diet, CKD Less common causes: malabsorption, post-surgical hypoparathyroidism, idiopathic hypoparathyroidism If serum calcium is 2-2.2 mmol/l then check vitamin D and PTH. If	MDS: U+E, calcium and phosphate, vitamin D and PTH.	Urgent referral is serum calcium < 2 mmol/l. Routine referral if serum calcium is 2-2.2 mmol/l.	http://www.gpnotebook.co.uk/simplepage.cfm?ID=-140902392

	vitamin D is low start vitamin D replacement as per local APC guidelines. http://www.nottsapc.nhs.uk/guidelines-formularies			
Osteoporosis	See detailed guidance at Nottinghamshire APC website http://www.nottsapc.nhs.uk/search?k=osteoporosis **Primary or secondary prevention:** Consider referral to Osteoporosis service if oral bisphosphonates contraindicated patient intolerant or inadequate response. **Consider specialist referral if:** • Patient has recurrent fractures or prevalent vertebral fractures • BMD has deteriorated despite patient concordance with treatment • Creatinine Clearance has decreased to < 35ml/min • Patient has been on treatment for ≥ 10yrs • Patient reports thigh, hip or groin pain or dental pain, dental mobility or dental swelling which may indicate an atypical femoral fracture or osteonecrosis of the jaw	MDS: U+E, Ca, PO4, vitamin D, PTH, TFT, Fasting CTX, DEXA scan result.	Routine referral to metabolic bone and osteoporosis service at MCH.	https://nos.org.uk/

Chronic Euvolaemic Hyponatraemia	See guidance at: https://cks.nice.org.uk/hyponatraemia **Hyponatraemia is common.** Review patient to determine if there is: • Hypovolaemia: Salt and water loss leading to dehydration, tachycardia, low BP • Hypervolaemia: CCF, liver disease, CKD **Euvolaemic hyponatraemic** Common causes: • Drugs: loop and thiazide diuretics, SSRI's, carbamazepine, SIADH Rare causes: • Polydipsia, Addison's disease, Hypothyroidism, Cerebral salt wasting, Re-set osmostat. Screening/diagnostic tests: • Serum and urine sodium and osmolality from samples taken at a similar time. TFT and 09.00am cortisol.	MDS: Full drug history - Serum and urine sodium and osmolality (samples taken at the same time), TFTs, 09.00am cortisol.	Serum Na < 120 mmol/l or patient acutely unwell refer to Acute Medicine. Serum Na > 120mmol/l: Routine referral to Endocrinology at KMH.	https://patient.info/doctor/hyponatraemia-pro
Poly Cystic Ovary Syndrome	See guidance at: https://cks.nice.org.uk/polycystic-ovary-syndrome Screening/diagnostic tests U+E, **oestradiol, LH, FSH, prolactin, testosterone, SHBG, 17OHP** (to rule out late onset CAH), HBA1c and lipids,	MDS: Full drug history, U+E, HBA1c, lipids, oestradiol, LH, FSH, prolactin, SHBG, 17OHP. Results of pelvic US scan if available.	Routine referral to endocrinology at KMH or NH.	https://patient.info/doctor/polycystic-ovary-syndrome-pro

	transvaginal or transabdominal US scan. **[Test with bolded text should be done off the pill for 6 weeks]** Two main management issues: • Hirsutes/oligomenorrhoea – refer to endocrinology if severe symptoms or patient concerns. • Infertility – refer to Gynaecology at KMH or local fertility services. In both situations weight management play a key role in treatment. Early referral to dietetic services is strongly advised.			
Hyperhidrosis (excess sweating)	See guidance at: https://cks.nice.org.uk/hyperhidrosis FBC, ESR, CRP, TFT, IGF-1 Consider hypoglycaemia and phaeochromocytoma. Consider non endocrine causes as appropriate such as chronic alcoholism, menopause, malignancy, TB, Hodgkin's, drugs: TCA, Venlafaxine. Only refer if screening tests are abnormal.	MDS: FBC, ESR, CXR, CRP, TFT, IGF-1. Fasting glucose (x3) if suspected hypoglycaemia, 24hr urine catecholamines if suspected phaeochromocytoma	Routine referral to endocrinology at KMH.	https://patient.info/doctor/Hyperhidrosis