SHORT SYNACTHEN TEST (SST): ADULT CLINICAL GUIDANCE AND MANAGEMENT FRAMEWORK

This guidance does not override the individual responsibility of health professionals to make appropriate decision according to the circumstances of the individual patient in consultation with the patient and /or carer. Health care professionals must be prepared to justify any deviation from this guidance.

Introduction

The Short Synacthen Test (SST) is a widely used diagnostic assessment to evaluate adrenal function by measuring the body's response to synthetic adrenocorticotropic hormone (ACTH). It is primarily conducted to diagnose adrenal insufficiency, including primary adrenal failure (Addison's disease) or secondary adrenal insufficiency due to pituitary dysfunction.

Synacthen (tetracosactrin) is a synthetic ACTH analogue which should stimulate the production of cortisol from the adrenal cortex. The test involves administering 250 micrograms of Synacthen (synthetic ACTH) intravenously (IV) or intramuscularly (IM), followed by blood cortisol measurements at baseline, 30 minutes, and sometimes 60 minutes post-injection. A normal response is indicated by a significant rise in cortisol levels, confirming adequate adrenal function, while an impaired response suggests adrenal insufficiency.

This guideline outlines the key procedures for performing, interpreting, and managing the Short Synacthen Test (SST), supporting accurate diagnosis and informed clinical decision-making in patients with suspected adrenal insufficiency. It is intended for use by all relevant healthcare professionals, including doctors, consultants, clinicians, advanced nurse practitioners, nurses, physician associates, pharmacists, and others involved in patient assessment and treatment.

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It is the responsibility of every individual to ensure this is the latest version as published on the Trust Intranet

Approved by the Diabetes Directorate Group on: Approved by DMB on:	2nd March 2026 25th March 2026
Approved by Medicines Safety Committee on:	12th November 2025
Review Date: This is the most current document and is to be used until a revised version is available	25th March 2029

Key amendments to this guideline

Date	Amendment	Approved by:
March 2026	Page 7, first bullet point under Preparation: The SST is ideally performed between 8:00 am and 9:00 am but can be undertaken at any time of day. If the test is booked after 10:00 am, the doctor may request ACTH and cortisol samples between 8:00 am and 9:00 am at the acute hospital phlebotomy department, if required. Page 8, first bullet point under How to arrange a Short Synacthen Test: Contact medical day case unit at WRH hospital on Ext: 30783 and book a suitable date and time (SST appointments should ideally be booked between 8:00 am and 9:00 am but may be scheduled at any time if ACTH testing is not required). ACTH samples should only be requested when an endocrine specialist has determined the need following referral to the Endocrinology Department; ACTH testing is not required from other departments (where the SST appointment is scheduled after 10:00 am, ACTH and cortisol samples may be requested between 8:00 am and 9:00 am at the acute hospital phlebotomy department, if clinically indicated). Page 13 due to permanent Discontinuation of Hydrocortisone Sodium Phosphate (previously known as Efcortesol), removed: premixed hydrocortisone sodium phosphate 100 mg/1 ml (2 ampules), or	Diabetes Directorate and DMB

Contents:

1. Indications for Short Synacthen Test
2. Test Preparation and Procedure
3. Timing and Sample Collection
4. Laboratory Interpretation of SST Results
5. Clinical Action and Steroid Replacement Recommendations
6. Follow-Up and Ongoing Monitoring

Short Synacthen Test (SST)

Adrenal glucocorticoid secretion is controlled by adrenocorticotrophic hormone (ACTH) released by the anterior pituitary. This test evaluates the ability of the adrenal cortex to produce cortisol after stimulation by synthetic ACTH (tetracosactide; Synacthen ®). It does not test the whole pituitary-adrenal axis.

Adrenal insufficiency is often unrecognised and can lead to adrenal crisis and death if not identified and treated. If adrenal crisis is suspected, see the adrenal insufficiency management guideline.

When is the Short Synacthen Test (SST) Indicated? (NICE NG243, 2024)

Indications

- Suspected adrenal insufficiency: To evaluate whether the adrenal glands can produce adequate cortisol in response to synthetic ACTH (Synacthen).
- Differentiating primary vs. secondary adrenal failure:
    - Primary: Adrenal glands themselves are dysfunctional.
    - Secondary: Pituitary gland isn't producing enough ACTH.
- Monitoring adrenal recovery: After long-term steroid therapy or adrenal suppression (e.g. post-Cushing's surgery).
- Congenital adrenal hyperplasia: Especially for diagnosing 21-hydroxylase deficiency.
- Screening for secondary adrenal insufficiency: Particularly in non-critically ill patients.

Not Recommended When

- Within 2 weeks of pituitary surgery or in cases of pituitary apoplexy—results may be unreliable.
- If baseline 8–10am cortisol >300 nmol/L, SST may not be necessary.
- In critically ill patients, where adrenal output may already be maximised

Cautions

- Do not test for adrenal insufficiency in people taking oral glucocorticoids at above physiological equivalents doses.
- Be aware that people taking exogenous glucocorticoids, by routes other than oral (such as inhaled, intramuscular, or topical), at physiological equivalent doses or above may have a low cortisol level.

- When performing a serum cortisol test or short Synacthen test, pause prednisolone for 24 hours, hydrocortisone for 12 hours, or dexamethasone for 72 hours before the test. After the tests, restart glucocorticoids at the physiological equivalent dose. The decision on further management should be based on the results of the test report.
- Serum cortisol may be falsely elevated in people taking oral oestrogen.
- These cautions apply equally to morning cortisol measurements, which are used as an initial screen for adrenal insufficiency.

Serum cortisol test

An initial serum cortisol test, ideally taken at 8–9am, is a valuable screening tool before proceeding with a Short Synacthen Test (SST). If the morning cortisol level is clearly sufficient (e.g. >300 nmol/L), adrenal insufficiency is unlikely, and dynamic testing may be unnecessary, thereby avoiding an invasive procedure and optimising clinical resources. Conversely, low or borderline levels (typically <300 nmol/L) may indicate the need for confirmatory testing with SST to assess adrenal reserve.

Interpretation of serum cortisol level

People aged 16 years and over

Serum cortisol level 8-9am
Has the sample been taken between 08.00hrs and 09.00hrs?

If yes

Cortisol < 150 nmol/L
May indicate adrenal insufficiency

- Consider initiating physiological steroid replacement therapy with Hydrocortisone tablets: 10 mg in the morning, 5 mg at lunchtime, and 5 mg in the late afternoon (around 5 PM). The decision to continue this therapy should be based on the results of the short Synacthen test (SST) report.
- If unwell, follow adrenal crisis emergency protocol on adrenal insufficiency guideline.
- Short Synacthen test is required. Please see page no: 8 for instructions on how to arrange the SST.
- Refer to endocrinology.

Cortisol 150–300 nmol/L
Diagnostic uncertainty

- Short Synacthen test is required. Please see page no: 8 for instructions on how to arrange the SST.
- Seek endocrinology advice.
- Consider initiating physiological steroid replacement therapy with Hydrocortisone tablets if symptomatic: 10 mg in the morning, 5 mg at lunchtime, and 5 mg in the late afternoon (around 5 PM). The decision to continue this therapy should be based on the results of the SST report.

Cortisol > 300 nmol/L
Adrenal insufficiency is very unlikely

- Discuss with the endocrinology if adrenal insufficiency is suspected.

Serum cortisol level outside 8 to 9 am
Has the sample been taken at any time of day?

Cortisol > 300 nmol/L
Adrenal insufficiency is very unlikely

Cortisol < 300 nmol/L

- Repeat serum cortisol level at 09.00hrs. Then follow above instructions.
- May need further endocrinology input.

Benefits of Diagnosing Adrenal Insufficiency with the SST:

SST helps in accurately diagnosing adrenal insufficiency by measuring the adrenal glands' response to synthetic ACTH (Synacthen). This factor is essential for determining whether the insufficiency is primary (adrenal gland issue) or secondary (pituitary gland issue). Early and accurate diagnosis allows for timely treatment, which can prevent complications, such as adrenal crisis, which is a potentially life-threatening condition. The test helps monitor the recovery of adrenal insufficiency.

The urgency of referral depends on the severity of symptoms and the serum cortisol level. Postural hypotension and/or electrolyte disturbance are indications for urgent referral or admission.

Contra-indications:

- Patients with severe atopic allergic disorders or previous hypersensitivity to synthetic ACTH should avoid SST.
- Avoid in pregnancy.
- Avoid short Synacthen test during treatment dose or supraphysiological dose of steroid treatment (For example, prednisolone dose above 5 mg daily dose or hydrocortisone above 30 mg of daily dose).
- Patients who have received intramuscular, intra-articular, or local steroid injections within the past month may exhibit signs of hypothalamic-pituitary-adrenal (HPA) axis suppression, potentially leading to impaired cortisol production.

Precautions:

- If adrenal insufficiency is strongly suspected or cortisol <100 nmol/L, treatment should not be withheld pending an SST.
- Hypersensitivity reactions to Synacthen have been reported. Local or systemic reactions tend to occur within 30 min of injection; therefore, the patient must be kept under observation for this time.
- Avoid in ITU or severely unwell patients, discuss with endocrinology if hypoadrenalism is suspected.
- Avoid post pituitary surgery for 6 weeks or with pituitary apoplexy.

Possible Side Effects of the Short Synacthen Test

The Short Synacthen Test is generally safe and well tolerated. However, like any medical procedure, a few side effects may occur:

Common or Mild Reactions

- Facial flushing or feeling warm
- Mild headache
- Temporary light-headedness or dizziness
- Nausea or upset stomach
- Tiredness or mild fatigue afterwards

These effects are usually short-lived and resolve without treatment.

Rare or Uncommon Reactions

Allergic reaction to Synacthen (very rare), which may include rash, itching, shortness of breath or swelling—medical staff are trained to respond quickly if this occurs.
Changes in blood pressure or heart rate during the test (usually mild).
Altered blood sugar levels, especially in people with diabetes (should be monitored).

In case of anaphylaxis:

- Administer Adrenaline 0.5 mg as 0.5 ml of 0.1% solution (1:1000) by intramuscular injection, repeat adrenaline as necessary (every 5 minutes) followed by Hydrocortisone 200 mg IV and Chlorpheniramine 10 mg IV slowly over at least 1 min.
- For further information see http://www.medicines.org.uk/emc/medicine/30030

Preparation:

- The SST is ideally performed between 8:00 am and 9:00 am but can be undertaken at any time of day. If the test is booked after 10:00 am, the doctor may request ACTH and cortisol samples between 8:00 am and 9:00 am at the acute hospital phlebotomy department, if required.
- Do not need to fast or change diet prior to the test.
- If the patient is taking steroids need to adjust the time taking the steroids on the day before and the day of the short Synacthen test.
- When doing a short Synacthen test, pause prednisolone for 24 hours, hydrocortisone for 12 hours or dexamethasone for 72 hours before the test, then restart glucocorticoids at the physiological equivalent dose and review with report.
- The day before the test, the patient may take their usual morning dose of Prednisolone before 7 am but must omit any further doses. On the day of the test, the patient must omit their morning steroid dose.
- If the patient taking hydrocortisone tablets, last dose should be at lunch time the day before the test.
- Do not use any steroid inhalers, nasal spray or creams on the day of the test or for 24hrs hours before the test.
- Check patient had intramuscular, or intra-articular or local steroid injections in 3 months.
- Ask patient if they are pregnant or not.
- The patient must bring their morning steroid medication with them to take after the last blood test and the SST has been completed.
- Advise individuals taking oestrogen-containing oral contraceptives or hormone replacement therapy to discontinue use for six weeks prior to serum cortisol testing due to potential false elevation of cortisol levels and recommend alternative contraception during this period; if oestrogen is used for HRT, consider switching to a transdermal formulation.

Oestrogen induces cortisol binding globulin (CBG) and leads to elevated serum cortisol. In pregnancy, or those taking the oral contraceptive pill, a higher threshold of >600 nmol/L applies. Other factors that can alter CBG include:

increased in pregnancy, OCP, HRT and may be decreased in liver and renal disease.(CBG increase with OCP: El-Farahan Clin Endo (2013) 78 673-80.)

How to arrange a short Synacthen test:

For Primary care patients, please contact the endocrinology department (A&G and e-referral required) or the MSDEC department if urgent.

For Secondary care patients:

- Contact medical day case unit at WRH hospital on Ext: 30783 and book a suitable date and time (SST appointments should ideally be booked between 8:00 am and 9:00 am but may be scheduled at any time if ACTH testing is not required). ACTH samples should only be requested when an endocrine specialist has determined the need following referral to the Endocrinology Department; ACTH testing is not required from other departments (where the SST appointment is scheduled after 10:00 am, ACTH and cortisol samples may be requested between 8:00 am and 9:00 am at the acute hospital phlebotomy department, if clinically indicated).
- Provide patient instructions — see Patient Information Leaflet: Short Synacthen Test.
- Send patient appointment letter and patient information booklet short Synacthen test.
- Provide injection short Synacthen 250 µg IM prescription chart to medical day case unit.
- Request on ICE system:

ACTH (Time sensitive test)
Short Synacthen Test (30 min sample)
Short Synacthen Test (Baseline sample)
Short Synacthen Test (60 min sample)

Requesting Short Synacthen Test on ICE System

- When requesting a Short Synacthen Test (SST), follow these steps:
- Search ACTH or Short Synacthen and select the SST icon on the ICE system. Order the following tests:
- ACTH (Time-sensitive test)
- Short Synacthen Test – Baseline sample
- Short Synacthen Test – 30-minute sample
- A 60-minute sample should only be requested if specifically advised by a consultant.
- Repeat ACTH is not routinely required for subsequent SSTs.

Procedure:

- Take serum for basal cortisol in a 5ml Gold Top BD vacutainer tube and ACTH (Time-sensitive test) in a 4ml EDTA (Purple) BD vacutainer tube. Clearly label

the sample with patient details, the actual time of collection and “time 0” or “baseline sample.

- Give Synacthen 250 µg IM or IV.
- Take a serum sample at 30 mins post-injection Synacthen for cortisol in a 5ml Gold Top BD vacutainer tube. Clearly label the sample with patient details, the actual time of collection and also “time 30 min”.
- If prior results were inconclusive or if requested by the endocrine team, a 60-minute post-Synacthen serum cortisol sample may be beneficial. In such cases, collect an additional sample at 60 minutes post-injection in a 5ml Gold Top BD vacutainer tube, clearly labelled with patient details, exact time of collection, and the note “60 min”.

Report Interpretation:

- Post Synacthen cortisol >450 nmol/L excludes adrenal insufficiency.
- Cortisol <450nmol/L 30 mins post Synacthen and >450nmol/L 60 mins post Synacthen indicates a slow/delayed adrenal response.
- Patients on opioid therapy and citalopram may demonstrate an inadequate response to synacthen.
- The baseline ACTH sample will only be referred for analysis if there is evidence of adrenal insufficiency (cortisol <450nmol/L post-Synacthen) to distinguish between primary and secondary adrenal failure.
- In the presence of adrenal insufficiency: ACTH < 10ng/L indicates secondary adrenal failure; ACTH >200ng/L indicates primary adrenal failure.

Types of Adrenal Insufficiency

Type	Description
Primary (Addison’s disease)	Caused by damage to the adrenal glands. The body doesn’t produce enough cortisol or aldosterone.
Secondary	Caused by reduced production of ACTH (from the pituitary gland), which stimulates adrenal function.
Tertiary	Caused by reduced CRH (from the hypothalamus), often due to long-term steroid treatment affecting hormone signalling.

Healthcare professionals should add the following alert to PAS/Bluespier: Click to display warning staff, enter code 242226 – "Risk of Adrenal Crisis" – and then submit to ensure appropriate clinical awareness and prompt management for diagnosed adrenal insufficiency patients.

Treatment:

Corticosteroid Replacement: Therapeutic Doses for Adrenal Insufficiency in Individuals ≥16 Years. Standardised Dosing Based on NICE Guidelines

The physiological equivalent dose is the dose of glucocorticoid that is equivalent to the amount that a healthy adrenal gland would normally produce:

For people aged 16 years and over this is a total daily dose of hydrocortisone 15 mg to 25 mg, prednisolone 3 mg to 5 mg, or dexamethasone 0.5 mg.

Treatment	Primary Adrenal Insufficiency	Congenital Adrenal Hyperplasia (CAH)	Secondary/Tertiary Adrenal Insufficiency
First-choice Glucocorticoid	Hydrocortisone 15–25 mg daily in 2–4 doses.	Hydrocortisone 15–25 mg daily in 2–4 doses; consider higher with specialist advice.	Hydrocortisone 15–25 mg daily in 2–3 doses.
Alternative Glucocorticoids	Prednisolone 3–5 mg if growth complete. or Modified-release hydrocortisone if growth complete.	Prednisolone 3–5 mg if growth complete. or Modified-release hydrocortisone if growth complete. Or dexamethasone under specialist advice.	Prednisolone 3–5 mg if growth complete. or Modified-release hydrocortisone if growth complete.
Mineralocorticoid Use	In Addison's disease, cortisol and aldosterone production are impaired. Aldosterone regulates sodium retention, potassium excretion, and blood pressure. Fludrocortisone dosing is adjusted based on blood pressure and electrolyte levels. Fludrocortisone 50–300 mcg; higher dose possible for active individuals.	Fludrocortisone 50–300 mcg; higher dose possible for active individuals.	❌ Not indicated; do not offer.

- The standard daily dose of hydrocortisone in adults is 15–25 mg, given in 2–4 divided doses (e.g. 10 mg on waking, 5 mg at noon, 5 mg in the early evening), tailored to body weight, metabolism, and absorption.

- As an alternative, prednisolone may be used in adults who have completed growth: 3–5 mg once daily orally.

- In patients previously treated with adenosuppressant steroids, if the Short Synacthen Test (SST) shows 30-min cortisol <450 nmol/L and 60-min cortisol >450 nmol/L, this indicates a delayed adrenal response, and daily steroid therapy may be safely withdrawn. These patients should receive stress-dose steroids only during episodes of acute illness until adrenal recovery is confirmed.
- If monitoring is limited to the 30-minute post-Synacthen sample, individuals with 30-minute cortisol levels between 400–450 nmol/L may similarly not require routine daily corticosteroid replacement but should be advised to take stress doses during illness, fever, or physiological stress.
- These individuals should take stress-dose steroids only during periods of acute illness (e.g. hydrocortisone 20 mg AM, 10 mg midday, 10 mg evening; or prednisolone 10 mg daily for 2–7 days), until full adrenal recovery is confirmed via repeat SST in 6–12 months.
- When using immediate-release hydrocortisone in divided doses, prioritise the higher dose in the morning to mirror natural cortisol rhythms; dosing should be adjusted based on clinical response.
- Refer to the BNF for dosing adjustments in special populations such as pregnancy, breastfeeding, or hepatic/renal impairment.
- Consult adrenal insufficiency guideline WAHT-END-017 for steroid weaning guidance.

Management at Diagnosis of Adrenal Insufficiency

Emphasise that adrenal insufficiency can be managed effectively, allowing individuals to lead full and active lives. Offer education on:

- The critical role of glucocorticoids and, where applicable, mineralocorticoids.
- Treatment rationale and duration, including symptoms of under- or over-replacement.
- When and how to adjust glucocorticoid doses during illness, stress, or emergencies.
- Recognising adrenal crisis and knowing when to seek emergency help (e.g. calling 999).
- Proper use of emergency steroid medication and follow-up care.
- Maintaining a continuous supply of medicines, including while travelling.
- Adapting dosing schedules across time zones, shift work, and fasting periods.
- The importance of not stopping treatment abruptly, unless advised clinically.

Provide clear information to patients, families, and carers on:

- Obtaining an NHS Steroid Emergency Card, medical alert jewellery, and mobile-based medical ID apps.
- Accessing free NHS prescriptions, support groups, and relevant charities.
- Communicating their condition with employers, education providers, and social circles.

Sick-day dosing

Medication Adjustment Guidelines During Periods of Stress in Patients with Adrenal Insufficiency

During periods of physiological stress, individuals with adrenal insufficiency require increased glucocorticoid dosing to replicate the body's natural rise in cortisol. Psychological stress may also necessitate dosing modifications based on clinical judgement.

Definition of Stress

Physiological stress: Includes fever, intercurrent illness, trauma, invasive procedures, surgery, and pregnancy (including labour and pregnancy loss).

Psychological stress: Sudden, intense emotional events such as bereavement, major life changes events such as getting married or divorced, or academic pressure.

General Dose Adjustment Guidance

Mild illness (e.g. viral infection without fever): Stress dose of glucocorticoid dose for 2–3 days.

Moderate illness or fever ≥37.5°C: Stress dose of glucocorticoid dose; maintain until recovery.

Severe illness, trauma, or surgery: Immediate parenteral hydrocortisone may be required (e.g. 100 mg IM/IV every 6–8 hours).

Labour and delivery: Specialist-led dosing; typically, IV hydrocortisone during active labour.

Psychological stress: Dose increase not routinely required unless symptoms or functional impact warrant adjustment.

Stress Dosing Regimens for Patients on Prednisolone or Hydrocortisone tablet.

Steroid	Stress Dose	Duration	Replacement Dose (after recovery) for daily steroid dependent patients.
Prednisolone	10 mg once daily	48 hours – 7 days or until recovered	5 mg once daily
Hydrocortisone	20 mg AM, 10 mg midday, 10 mg evening (TDS)	48 hours – 7 days or until recovered	10 mg AM, 5 mg midday, 5 mg evening (TDS)

Additional Advice

- Resume maintenance dose once recovered.
  If No Improvement Within 48 Hours:
- Refer to GP or medical team to reassess steroid dose and underlying condition.
- Ensure emergency hydrocortisone injection is available, and carers know how to administer it.
- Seek prompt medical advice if vomiting, diarrhoea, or inability to take oral medication occurs.
- If the patient only uses steroids during acute illness, taper to alternate days for 4–7 days before discontinuing, based on clinical assessment.

Emergency Management

If the patient is severely unwell (e.g. collapse, giddiness, unable to take oral medication, unconscious, nil by mouth, vomiting or diarrhoea):

- Administer Hydrocortisone 100 mg IM stat
- Monitor blood pressure, blood glucose, and U&Es
- Initiate IV 0.9% normal saline and/or dextrose infusion as clinically indicated
- Arrange hospital admission if adrenal crisis is suspected or high-risk symptoms are present

Emergency management kits:

- Provide training on how to use emergency management kits.
- Each emergency kit should contain:
  - an intramuscular hydrocortisone injection
  - hydrocortisone sodium succinate 100 mg powder and 2 ml water for injection (from a 5- or 10-ml vial) (2 vials)
  - four blue needles 23 G
  - two 2 ml syringes

- written instructions in an easy-to-understand format (for example, with diagrams or pictures) on how to prepare and give emergency intramuscular hydrocortisone and how to safely dispose of needles and syringes. Patient information leaflet available on Trust intranet policies and guideline endocrinology.
- National red steroid emergency cards.
- Advise people with adrenal insufficiency and their families and carers to check the expiry date on hydrocortisone, needles and syringes and replace as necessary.
- Add PAS alert 242226 Risk of adrenal crisis. To add on PAS/ Bluespier alert: Click to display warning PAS and enter 242226 on staff alert then next column will show risk of adrenal crisis, then submit.

Review Frequency and Monitoring in Adrenal Insufficiency (Age ≥16)

Adjusting Review Frequency

- Review schedules should be tailored using a shared decision-making approach, considering the patient's individual clinical needs. The GP or the department initiating corticosteroid therapy is also responsible for follow-up care.
- **More frequent reviews** are advised:
  - At or shortly after diagnosis
  - During periods of rapidly changing health or personal circumstances
  - At transition to adult care services
  - When there are concerns about medication adherence or safe condition management
- **Less frequent reviews** may be appropriate for:
  - Adults on stable exogenous glucocorticoid regimens
  - Those confident in self-management
  - Individuals with stable clinical status

Key Elements to Cover During Reviews

- Assess psychological wellbeing and functional ability
- Evaluate understanding of adrenal insufficiency and confidence with self-management
- Monitor use of additional glucocorticoids (e.g. sick-day dosing, emergency injections)
- Review knowledge of sick-day rules and offer further education as needed

- Document any episodes of adrenal crisis, hospital admissions, or infections
- Advise on lifestyle-related dose adjustments (e.g. travel, shift work, endurance activity)
- Monitor for symptoms of glucocorticoid over- or under-replacement
- For primary adrenal insufficiency, assess mineralocorticoid balance (e.g. salt craving, oedema, BP); consider measuring renin and adjusting fludrocortisone dose

Recommended Measurements

- Lying and standing blood pressure
- Serum electrolytes
- HbA1c
- Bone density (once within 5 years of diagnosis)
- Lipid profile

Tapering Glucocorticoids

- Taper decisions should be guided by the initiating clinical team. Please see adrenal insufficiency guideline WAHT-END-017.
- Inform patients tapering below physiological doses to expect temporary symptoms (e.g. fatigue, appetite loss, low mood)
- Reinforce the importance of sick-day rules and ensure appropriate cover is arranged for procedures or surgery

For more information:

- Please see adrenal insufficiency guidelines: WAHT-END-017
- Worcester Acute Hospital Trust Red steroid card and sick day rule booklet order information:
  1. Steroid emergency card Xerox order number for Worcester Acute Trust: WR5 735

  2. Patient information booklet sick day rule for Adrenal insufficiency: WAHT- PI – 0705

  3. Patient information booklet how to do injection hydrocortisone: WAHT – PI – 0703

How to contact endocrine team?

Internal referral

Internal ward referral or community hospital referral please

For Worcester Royal Hospital endocrine referral:

Please e-mail wah-tr.diabetesandendocrinereferrals@nhs.net.

Consultant's secretary: 01905733039 or extension 33822, 01905760671or extension 33849

For Alexandra Hospital, Redditch email address:

Ward Referrals: wah-tr.alexdiabetessecs@nhs.net

Consultant secretary: 01527 503890, Ext 43890.

External referral

GP Surgery or community hospital health care professionals and require advice and guidance for endocrinology or diabetes then please email: -

For Worcester Royal Hospital endocrine email address:

GP correspondence/Advice and Guidance: wah-tr.diabetesadvicewrh@nhs.net

Consultant's secretary: 01905733039 or extension 33822, 01905760671or 33849

For Alexandra Hospital, Redditch email address:

GP correspondence/Advice and Guidance wah-tr.diabetesadvicealx@nhs.net

Consultant secretary: 01527 503890, Ext 43890.

Monitoring

Page/ Section of Key Document	Key control:	Checks to be carried out to confirm compliance with the Policy:	How often the check will be carried out:	Responsible for carrying out the check:	Results of check reported to: (Responsible for also ensuring actions are developed to address any areas of non-compliance)	Frequency of reporting:
	WHAT?	HOW?	WHEN?	WHO?	WHERE?	WHEN?
P1 Indications for SST	Correct identification of patients who meet criteria for SST.	Audit of SST requests against guideline criteria. Decisions will be guided by the feedback we receive from staff, patients, and their carers.	A decision will be made once all feedback has been received and reviewed.	Consultant Endocrinologist / Endocrine Clinical Nurse Specialist (ECNS).	Endocrinology Governance Meeting	A decision will be made once all feedback has been received and reviewed.
P2 – Pre test preparation	Ensuring correct pre test instructions (medication withholding, timing, fasting if required)	Spot checks of patient information sheets and documentation. Decisions will be guided by the feedback we receive from staff, patients, and their carers.	A decision will be made once all feedback has been received and reviewed.	Consultant Endocrinologist / Endocrine Clinical Nurse Specialist (ECNS).	Endocrinology Governance Meeting	A decision will be made once all feedback has been received and reviewed.
P3 – SST Procedure	SST performed according to protocol (correct dose, timing of samples, documentation)	Direct observation audits + review of completed SST documentation. Decisions will be guided	A decision will be made once all feedback has been	With support of Medical day case unit at WRH	Endocrinology Governance Meeting	A decision will be made once all feedback

		by the feedback we receive from staff, patients, and their carers.	received and reviewed.	Consultant Endocrinologist / Endocrine Clinical Nurse Specialist (ECNS).		has been received and reviewed.
P4 – Sample Handling	Correct labelling, timing, and transport of samples to laboratory	Laboratory incident trend analysis + random sample audits. Decisions will be guided by the feedback we receive from staff, patients, and their carers.	A decision will be made once all feedback has been received and reviewed.	Biochemistry Laboratory Manager, Consultant Endocrinologist / Endocrine Clinical Nurse Specialist (ECNS).	Pathology Quality Committee Endocrinology Governance Meeting	A decision will be made once all feedback has been received and reviewed.
P5 – Interpretation of Results	Interpretation documented by appropriate clinician and within expected timeframe	Audit of SST result interpretation and sign off. Decisions will be guided by the feedback we receive from staff, patients, and their carers.	A decision will be made once all feedback has been received and reviewed.	Consultant Endocrinologist	Endocrinology Governance Meeting	A decision will be made once all feedback has been received and reviewed.
P6 – Communication of Results	Results communicated to patient and GP within guideline timeframe	Review of clinic letters and communication logs. Decisions will be guided by the feedback we receive from staff, patients, and their carers.	A decision will be made once all feedback has been received and reviewed.	Consultant Endocrinologist	Directorate Governance Board	A decision will be made once all feedback has been received and reviewed.

P7 – Management Following SST	Appropriate management plan documented and implemented	Case note audit of post test management. Decisions will be guided by the feedback we receive from staff, patients, and their carers.	A decision will be made once all feedback has been received and reviewed.	Consultant Endocrinologist	Directorate Governance Board	A decision will be made once all feedback has been received and reviewed.
P8 – Incident Reporting	Incidents related to SST are reported and reviewed	Analysis of Datix incident trends.	A decision will be made once Datix reviewed.	Service Manager / Governance Lead	Directorate Governance Board	A decision will be made once Datix reviewed.
P9 – Patient Experience	Patient satisfaction with SST process	Review of patient feedback forms. Decisions will be guided by the feedback we receive from staff, patients, and their carers.	A decision will be made once all feedback has been received and reviewed.	Patient Experience Lead Consultant Endocrinologist Endocrine Clinical Nurse Specialist (ECNS).	Patient Experience Committee	A decision will be made once all feedback has been received and reviewed.

References

1. https://www.ruh.nhs.uk/pathology/documents/clinical_guidelines/PATH-024_Short_Synthacthen_Test_protocol.pdf

2. https://www.nbt.nhs.uk/sites/default/files/Short%20Synacthen%20Test.pdf

3. https://mft.nhs.uk/app/uploads/2023/02/Short-synacthen-test-Adults.pdf

4. Adrenal insufficiency | Treatment summaries | BNF | NICE https://bnf.nice.org.uk/treatment-summaries/adrenal-insufficiency/

5. Scenario: Management | Management | Addison's disease | CKS | NICE https://cks.nice.org.uk/topics/addisons-disease/management/management/

6. https://www.nice.org.uk/guidance/ng243/chapter/Recommendations Recommendations | Adrenal insufficiency: identification and management | Guidance | NICE

7. www.bnfc.nice.org.uk/drugs/tetracosactide/#indications-and-dose

8. CBG increase with OCP: El-Farahan Clin Endo (2013) 78 673-80

9. Adrenal insufficiency: identification and management—summary of new NICE guidance BMJ 2025; 389 doi: https://doi.org/10.1136/bmj.r330 (Published 01 May 2025) Cite this as: BMJ 2025;389:r330

10. Addison's disease: How is the diagnosis of Addison's disease confirmed? (September 2024) Available at: https://cks.nice.org.uk/topics/addisons-disease/diagnosis/confirming-the-diagnosis/

Contribution List

This key document has been circulated to the following individuals for consultation:

Designation
Dr Ramalingam Bhaskar (Endocrine consultant)
Dr. Chandrashekar Shetty (Consultant Chemical Pathologist)
Dr Louise Hawke (Biochemistry clinical scientist)
Dr Michael Cornes (Biochemistry clinical scientist)
Katie Spittle (Biochemistry senior clinical scientist)
Dr Mohammad Abdus Salam (Endocrine consultant)
Dr Irfan Babar (Endocrine consultant)
Dr Munir Babar (Endocrine consultant)
Dr Ayesha Khalil (Endocrine consultant)
Saffiya Khadam (Pharmacist)
Alison Hall (Lead Nurse- Diabetes)
Swapna George (Endocrine Specialist Nurse)

This key document has been circulated to the chair(s) of the following committee's / groups for comments:

Committee
Diabetes and endocrine directorate committee 01/09/2025

Supporting Document 1 - Equality Impact Assessment Tool

Equality and Health Inequalities Impact Assessment (EHIA) Tool

Herefordshire & Worcestershire STP - Equality and Health Inequalities Impact Assessment (HEIA) Form
Please read HEIA guidelines when completing this form

Section 1 - Name of Organisation (please tick)

Herefordshire & Worcestershire STP		Herefordshire Council		Herefordshire CCG	
Worcestershire Acute Hospitals NHS Trust	✓	Worcestershire County Council		Worcestershire CCGs	
Worcestershire Health and Care NHS Trust		Wye Valley NHS Trust		Other (please state)	

Name of Lead for Activity	Dr Ramalingam Bhaskar

Details of individuals completing this assessment	Name	Job title	e-mail contact
	Dr Ramalingam Bhaskar	Consultant	ramalingam.bhaskar@nhs.net
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	Swapna George	Clinical Nurse Specialist	Swapna.george@nhs.net
Date assessment completed			

Section 2

Activity being assessed (e.g. policy/procedure, document, service redesign, policy, strategy etc.)	Title:			
What is the aim, purpose and/or intended outcomes of this Activity?				
Who will be affected by the development	❑√ ❑√	Service User√ Patient√	❑√ ❑√	Staff√ Communities√

& implementation of this activity?	❑√ ❑	Carers√ Visitors	❑ ❑	Other _____
Is this:	❑ Review of an existing activity √❑ New activity√ ❑ Planning to withdraw or reduce a service, activity or presence?			
What information and evidence have you reviewed to help inform this assessment? (Please name sources, eg demographic information for patients / services / staff groups affected, complaints etc.	References 1. https://www.ruh.nhs.uk/pathology/documents/clinical_guidelines/PATH-024_Short_Synthacthen_Test_protocol.pdf 2. https://www.nbt.nhs.uk/sites/default/files/Short%20Synacthen%20Test.pdf 3. https://mft.nhs.uk/app/uploads/2023/02/Short-synacthen-test-Adults.pdf 4. Adrenal insufficiency | Treatment summaries | BNF | NICE https://bnf.nice.org.uk/treatment-summaries/adrenal-insufficiency/ 5. Scenario: Management | Management | Addison's disease | CKS | NICE https://cks.nice.org.uk/topics/addisons-disease/management/management/ 6. https://www.nice.org.uk/guidance/ng243/chapter/Recommendations Recommendations | Adrenal insufficiency: identification and management | Guidance | NICE 7. www.bnfc.nice.org.uk/drugs/tetracosactide/#indications-and-dose 8. CBG increase with OCP: El-Farahan Clin Endo (2013) 78 673-80 9. Adrenal insufficiency: identification and management—summary of new NICE guidance BMJ 2025; 389 doi: https://doi.org/10.1136/bmj.r330 (Published 01 May 2025) Cite this as: BMJ 2025;389:r330 10. Addison's disease: How is the diagnosis of Addison's disease confirmed? (September 2024) Available at: https://cks.nice.org.uk/topics/addisons-disease/diagnosis/confirming-the-diagnosis/			
Summary of engagement or consultation undertaken (e.g. who and how have you engaged with, or why do you believe this is not required)	Directorate team diabetes and endocrinology Biochemistry consultants			
Summary of relevant findings	This guideline provides essential steps for conducting, interpreting, and managing results of the SST to ensure accurate diagnosis and appropriate clinical decision-making for patients suspected of adrenal insufficiency.			

Section 3
Please consider the potential impact of this activity (during development & implementation) on each of the equality groups outlined below. **Please tick one or more impact box below for each Equality Group and explain your rationale**. Please note it is possible for the

potential impact to be both positive and negative within the same equality group and this should be recorded. Remember to consider the impact on e.g. staff, public, patients, carers etc. in these equality groups.

Equality Group	Potential positive impact	Potential neutral impact	Potential negative impact	Please explain your reasons for any potential positive, neutral or negative impact identified
Age	√			Persons will be treated as per guidelines irrespective of age,
Disability	√			Persons will be treated as per guidelines irrespective of any disability
Gender Reassignment		√		Treatment will be given irrespective of sex reassignment
Marriage & Civil Partnerships		√		Treatment will be given irrespective of marriage status
Pregnancy & Maternity	√			Treatment will be given as per guidelines
Race including Traveling Communities	√			Treatment will be given irrespective of communities' identity
Religion & Belief		√		Treatment will be given irrespective any religion
Sex		√		Treatment will be given irrespective of gender
Sexual Orientation		√		Treatment will be given irrespective sexual orientation
Other Vulnerable and Disadvantaged Groups (e.g. carers; care leavers; homeless; Social/Economic deprivation, travelling communities etc.)	√			Treatment will be given irrespective of whether they belong to any group
Health Inequalities (any preventable, unfair & unjust differences in health status between groups,	√			The guidelines will help to deliver care without any health inequalities

Equality Group	Potential positive impact	Potential neutral impact	Potential negative impact	Please explain your reasons for any potential positive, neutral or negative impact identified
populations or individuals that arise from the unequal distribution of social, environmental & economic conditions within societies)				

Section 4

What actions will you take to mitigate any potential negative impacts?	Risk identified	Actions required to reduce / eliminate negative impact	Who will lead on the action?	Timeframe
	No	.		
How will you monitor these actions?	N/A			
When will you review this EIA? (e.g in a service redesign, this EIA should be revisited regularly throughout the design & implementation)	N/A			

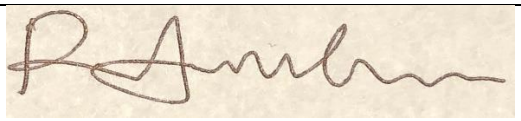
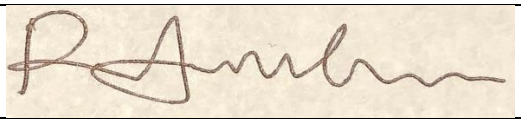
Section 5 - Please read and agree to the following Equality Statement

1. Equality Statement

1.1. All public bodies have a statutory duty under the Equality Act 2010 to set out arrangements to assess and consult on how their policies and functions impact on the 9 protected characteristics: Age; Disability; Gender Reassignment; Marriage & Civil Partnership; Pregnancy & Maternity; Race; Religion & Belief; Sex; Sexual Orientation

1.2. Our Organisations will challenge discrimination, promote equality, respect human rights, and aims to design and implement services, policies and measures that meet the diverse needs of our service, and population, ensuring that none are placed at a disadvantage over others.

1.3. All staff are expected to deliver services and provide services and care in a manner which respects the individuality of service users, patients, carer's etc, and as such treat them and members of the workforce respectfully, paying due regard to the 9 protected characteristics.

Signature of person completing EIA	
Date signed	22/09/2025
Comments:	None
Signature of person the Leader Person for this activity	
Date signed	22/09/2025
Comments:	None

Supporting Document 2 – Financial Impact Assessment

To be completed by the key document author and attached to key document when submitted to the appropriate committee for consideration and approval.

	Title of document:	Yes/No
1.	Does the implementation of this document require any additional Capital resources	No
2.	Does the implementation of this document require additional revenue	No
3.	Does the implementation of this document require additional manpower	No
4.	Does the implementation of this document release any manpower costs through a change in practice	No
5.	Are there additional staff training costs associated with implementing this document which cannot be delivered through current training programmes or allocated training times for staff	No
	Other comments:	

If the response to any of the above is yes, please complete a business case and which is signed by your Finance Manager and Directorate Manager for consideration by the Accountable Director before progressing to the relevant committee for approval.