

Document Control

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1. Purpose

The purpose of this document is to help practitioners to determine the minimum level of testing that a patient should have preoperatively at North Devon District Hospital.

2. Background

This guideline covers routine preoperative tests for people aged over 16 who are having elective surgery.

It is a local adaptation of the 2016 NICE Guideline (NG45 “Routine preoperative tests for elective surgery” available at <http://www.nice.org.uk>).

Many apparently healthy people are tested before surgery to check for undetected conditions that might affect their treatment. This can provide a benefit where test results yield additional information that cannot be obtained from a patient history and physical examination alone. However, excessive preoperative testing can cause significant anxiety, delays in treatment and unnecessary, costly and possibly harmful treatments when false positive results are obtained. Even genuinely abnormal results often do not result in any significant change in perioperative management in relatively healthy people.

This guideline recommends when ‘routine’ preoperative tests should be performed. The word ‘routine’ implies the generic testing of people in whom there is no indication for the test, other than that they may have an operation. Here at NDDH, this is meant as a minimum standard and does not replace the autonomy and clinical acumen of the practitioner (i.e. if your clinical assessment suggests further testing, please do so).

N.B. We have elected to continue screening selected patients for diabetes as per our current Trust guidance due to the frequency of abnormal results encountered within our unit.

3. Definitions

FBC	Full Blood Count
ECG	Electrocardiograph
HbA1c	Glycated Haemoglobin
U&E	Urea, creatinine and electrolytes
TFT's	Thyroid function tests

4. Responsibilities

4.1. Role of the Pre-Op Assessment Nurses

The Pre-Op Assessment Nurse is responsible for:

- The ordering of pre-operative tests in accordance with these guidelines and the results of their clinical assessment.
- Reviewing the results of pre-operative tests and acting on abnormal results as indicated.

4.2. Role of the Anaesthetist

The anaesthetist is responsible for:

- Providing anaesthetic advice on pre-operative testing and results prior to elective surgery.

4.3. Role of the Surgeon

The surgeon is responsible for:

- Providing surgical advice on pre-operative testing and results prior to elective surgery.

5. Routine Testing Guidance

5.1. Considering existing medicines

- Take into account any medicines people are taking when considering whether to offer any preoperative test.
- Common examples would include:
 - Blood pressure medications (check U&E)
 - Antiplatelet medications (check FBC)
 - Anticoagulants (check FBC/coagulation)
 - Diabetes medications (check HbA1c)
 - Thyroid medications (check TFT's)
 - Anaemia medications (check FBC)

5.2. Specific tests

- **FBC**
 - See NICE guidance (Appendix 1)

- **Haemostasis (coagulation screen)**
 - o See NICE guidance (Appendix 1)
- **Kidney function (U&E)**
 - o See NICE guidance (Appendix 1)
- **ECG**
 - o See NICE guidance (Appendix 1)
- **Lung function/arterial blood gas**
 - o See NICE guidance (Appendix 1)
- **Sickle-cell test**
 - o See NICE guidance (Appendix 1)
- **Urine tests**
 - o Consider microscopy and culture of midstream urine sample before surgery if the presence of a urinary tract infection would influence the decision to operate.
 - o This would include orthopaedics (using metalwork) and urology surgery.
- **HbA1c**
 - o See separate Trust guidelines on diabetes management
- **Pregnancy test**
 - o See Trust “Pregnancy Screening Prior to Surgery – Standard Operating Procedure”

6. Equality Impact Assessment

1	Group	Positive Impact	Negative Impact	No Impact	Comment
	Age			X	
	Disability			X	

Gender			X	
Gender Reassignment			X	
Human Rights (rights to privacy, dignity, liberty and non-degrading treatment), marriage and civil partnership			X	
Pregnancy			X	
Maternity and Breastfeeding			X	
Race (ethnic origin)			X	
Religion (or belief)			X	
Sexual Orientation			X	

7. Appendix 1 – Routine preoperative tests for elective surgery. NICE Guidelines (NG45)

NICE National Institute for Health and Care Excellence

2. Recommendations for specific surgery and ASA grades: colour traffic light tables

ASA Grades (American Society of Anesthesiologists Physical Status Classification System)	
ASA 1	A normal healthy patient
ASA 2	A patient with mild systemic disease
ASA 3	A patient with severe systemic disease
ASA 4	A patient with severe systemic disease that is a constant threat to life

Test	ASA 1	ASA 2	ASA 3 or ASA 4
Minor surgery (examples: excising skin lesion; draining breast abscess)			
Full blood count	Not routinely	Not routinely	Not routinely
Haemostasis	Not routinely	Not routinely	Not routinely
Kidney function	Not routinely	Not routinely	Consider in people at risk of AKI ¹
ECG	Not routinely	Not routinely	Consider if no ECG results available from past 12 months
Lung function/arterial blood gas	Not routinely	Not routinely	Not routinely
Intermediate surgery (examples: primary repair of inguinal hernia; excising varicose veins in the leg; tonsillectomy or adenotonsillectomy; knee arthroscopy)			
Full blood count	Not routinely	Not routinely	Consider for people with cardiovascular or renal disease if any symptoms not recently investigated
Haemostasis	Not routinely	Not routinely	Consider in people with chronic liver disease <ul style="list-style-type: none"> • If people taking anticoagulants need modification of their treatment regimen, make an individualised plan in line with local guidance • If clotting status needs to be tested before surgery (depending on local guidance) use point-of-care testing²
Kidney function	Not routinely	Consider in people at risk of AKI ¹	Yes
ECG	Not routinely	Consider for people with cardiovascular, renal or diabetes comorbidities	Yes
Lung function/arterial blood gas	Not routinely	Not routinely	Consider seeking advice from a senior anaesthetist as soon as possible after assessment for people who are ASA grade 3 or 4 due to known or suspected respiratory disease
Major or complex surgery (examples: total abdominal hysterectomy; endoscopic resection of prostate; lumbar discectomy; thyroidectomy; total joint replacement; lung operations; colonic resection; radical neck dissection)			
Full blood count	Yes	Yes	Yes
Haemostasis	Not routinely	Not routinely	Consider in people with chronic liver disease <ul style="list-style-type: none"> • If people taking anticoagulants need modification of their treatment regimen, make an individualised plan in line with local guidance • If clotting status needs to be tested before surgery (depending on local guidance) use point of care testing²
Kidney function	Consider in people at risk of AKI ¹	Yes	Yes
ECG	Consider for people aged over 65 if no ECG results available from past 12 months	Yes	Yes
Lung function/arterial blood gas	Not routinely	Not routinely	Consider seeking advice from a senior anaesthetist as soon as possible after assessment for people who are ASA grade 3 or 4 due to known or suspected respiratory disease
AKI, acute kidney injury ¹ See recommendation 1.1.8 of the NICE guideline on acute kidney injury . ² Note that currently the effects of direct oral anticoagulants (DOACs) cannot be measured by routine testing.			

¹'Routine preoperative tests for elective surgery', NICE guideline NG45 (April 2016)
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