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Positron Emission Tomography – Computed Tomography (PET-CT) (Fixed and Mobile Site)

Service Specification: SS50

Service Specification:

SS50, Positron Emission Tomography – Computed Tomography (PET-CT) (Fixed and Mobile Site)

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Abbreviations

ARSAC	Administration of Radioactive Substances Advisory Committee
AWMSG	All Wales Medicines Strategy Group
AWPET	All Wales Positron Emission Tomography Advisory Group
FDG	Fluorodeoxyglucose
IR(ME)R	Ionising Radiation (Medical Exposure) Regulations (IR(ME)R)
IPFR	Individual Patient Funding Request
MHRA	Medicines and Healthcare products Regulatory Agency
NWJCC	NHS Wales Joint Commissioning Committee
PET	Positron Emission Tomography
PET-CT	Positron Emission Tomography – Computed Tomography
PETIC	Positron Emission Tomography Imaging Centre
SMC	Scottish Medicines Consortium

Statement

NHS Wales Joint Commissioning Committee (NWJCC) commission the service of positron emission tomography – computed tomography (PET-CT) for all ages in accordance with the criteria outlined in this specification.

In creating this document NWJCC has reviewed the requirements and standards of care that are expected to deliver this service.

Welsh Language

NWJCC is committed to treating the English and Welsh languages on the basis of equality, and endeavour to ensure commissioned services meet the requirements of the legislative framework for Welsh Language, including the [Welsh Language Act \(1993\)](#), the [Welsh Language \(Wales\) Measure 2011](#) and the [Welsh Language Standards \(No.7\) Regulations 2018](#).

Where a service is provided in a private facility or in a hospital outside of Wales, the provisions of the Welsh language standards do not directly apply but in recognition of its importance to the patient experience, the referring health board should ensure that wherever possible patients have access to their preferred language.

In order to facilitate this, NWJCC is committed to working closely with providers to ensure that in the absence of a Welsh speaker, written information will be offered and people have access to either a translator or 'Language-line' if requested. Where possible, links to local teams should be maintained during the period of care.

Decarbonisation

NWJCC is committed to taking assertive action to reducing the carbon footprint through mindful commissioning activities. Where possible and taking into account each individual patient's needs, services are provided closer to home, including via digital and virtual access, with a delivery chain for service provision and associated capital that reflects the NWJCC commitment.

Disclaimer

NWJCC assumes that healthcare professionals will use their clinical judgment, knowledge and expertise when deciding whether it is appropriate to apply this document.

This document may not be clinically appropriate for use in all situations and does not override the responsibility of healthcare professionals to make decisions appropriate to

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the circumstances of the individual patient, in consultation with the patient and/or their carer or guardian, or Local Authority.

NWJCC disclaims any responsibility for damages arising out of the use or non-use of this policy.

1. Introduction

This document has been developed as the Service Specification for the planning and delivery of positron emission tomography – computed tomography (PET-CT) for people of all ages resident in Wales. This service will only be commissioned by the NHS Wales Joint Commissioning Committee (NWJCC) and applies to residents of all seven Health Boards in Wales.

1.1 Background

Positron emission tomography (PET) has become a central diagnostic tool in the management of patients with cancer and many other non-cancer conditions, and its role continues to evolve. PET influences clinical decision making, and there is an increasing body of high quality evidence to demonstrate the contribution of PET to improved patient outcomes in several disease areas^{1,2}. All indications included in the NWJCC Commissioning policy for Positron Emission Tomography (CP50) are supported by the best available evidence and updated annually, when possible.

The Welsh PET service is currently delivered across three sites: a digital, fixed scanner in Cardiff (PETIC; since 2010), a mobile PET scanner located at Wrexham Hospital in North Wales (since 2015) and more recently, a mobile scanner at Singleton Hospital in Swansea (since 2020).

Clinical demand for PET scanning is growing worldwide, with an 18.9% year on year growth reported in the England³. In 2019-20, 3,758 scans were performed for the whole of Wales. Scanning activity was affected by the COVID-19 pandemic in 2020-21, with 3,865 scans delivered to patients in Wales. However, Wales is clearly realising the increase in demand with 5,327 PET scans performed in 2021-22 (PETIC – 2,624; North Wales – 1,296 and Swansea – 1,407); 6,034 in 2022-23 (PETIC – 3,155; North Wales – 1,379 and Swansea – 1,548). The majority of scans are oncology related.

According to the National Oncologic PET Registry (NCRI)⁴, there are 1.05 PET scanners per million population in England. The 2005 Royal College of Radiologists (RCR) recommendations suggest an allowance of approximately 1 scanner per million

¹ Relationship between Cancer Type and Impact of PET and PET/CT on Intended Management: Findings of the National Oncologic PET Registry Hillner, B. Et al., [Journal of Nuclear Medicine](#) 49(12):1928-35 December 2008.

² Evidence-based indications for the use of PET-CT in the UK 2013/16 The Royal College of Radiologists, Royal College of physicians, British Nuclear Medicine Society, Administration of Radioactive substances Advisory Committee <https://www.rcr.ac.uk/publication/evidence-based-indications-use-pet-ct-united-kingdom-2016>

³ Professor Sir Mike Richards, Diagnostics: Recovery and Renewal – Report of the Independent Review of Diagnostic Services for NHS England (Dec 2020)

⁴ [Home of UK PET Core Lab \(ncri-pet.org.uk\)](http://ncri-pet.org.uk)

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population. In Wales, there are currently 0.6 PET Scanners per million population, which is significantly lower than the rest of the UK and many countries in Europe.

Following publication of the Imaging Statement of Intent (Welsh Government, 2018) in November 2018⁵, the All Wales PET Advisory Group (AWPET) and the Welsh Scientific Advisory Committee (WSAC) produced a report “Positron Emission Tomography (PET) in Wales – Overview and Strategic Recommendations”⁶. One of its five key recommendations was that NWJCC should be commissioned to produce a Programme Business Case (PBC) for PET-CT capacity in Wales that considers increased demand projections, estates, staffing requirements and research for the next 10 years.

A PBC that included appraisal of all of these requirements was submitted to Welsh Government, alongside letters of support from all Welsh Health Boards and Velindre NHS Trust, in June 2021. Since the subsequent endorsement of the PBC in August 2021 and following receipt of a mandate from Welsh Government as Programme Sponsors⁷, NWJCC now host the All Wales PET Programme for implementation of the PBC Preferred Way Forward.

The nationally directed Programme will oversee a programme of work that will deliver sustainable and high-quality PET services across Wales, including four fixed, digital PET scanners and ancillary equipment. Features of the service in a business as usual end-state, will show responsive demand and capacity planning and will be delivering clear quality outcomes through modern facilities, optimally configured workforce in fully accredited units and with assured supply of radiopharmaceuticals. Ultimately, this Programme will ensure that the population of Wales will have equitable access to high quality PET scanning and research, in line with best practice across the UK and Europe.

1.2 Aims and Objectives

The aim of this service specification is to define the requirements and standard of care essential for delivering PET-CT for people of all ages resident in Wales.

The objectives of this service specification are to:

- detail the specifications required to deliver PET-CT services for people who are residents in Wales, or non-Wales residents referred for PET-CT in a Welsh centre
- ensure minimum standards of care are set for the use of PET-CT
- ensure equitable access to PET-CT
- deliver a high-quality PET-CT service
- identify centres that are able to provide PET-CT

⁵ <https://gov.wales/written-statement-statement-intent-diagnostic-imaging-services>

⁶ NWJCC, 2018

⁷ Goodall, A. 2021. Letter to Sian Lewis. 28 October

- improve outcomes for people accessing PET-CT services.

1.3 Relationship with other documents

This document should be read in conjunction with the following documents:

- **NHS Wales**
 - All Wales Policy: [Making Decisions in Individual Patient Funding requests \(IPFR\)](#).
- **NHS Wales Joint Commissioning Committee policies and service specifications**
 - [CP50, Positron Emission Tomography](#), Commissioning Policy.
- **National Institute of Health and Care Excellence (NICE) guidance**
 - [Epilepsies: diagnosis and management, NICE Clinical Guideline \(CG137\) February 2020](#)
 - [Colorectal Cancer: diagnosis and management](#), NICE Guideline (NG151). NICE, January 2020.
 - [Prostate Cancer: diagnosis and management, NICE Guideline \(NG131\), May 2019](#)
 - [Early and locally advanced breast cancer: diagnosis and management, NICE Guideline \(NH101\), July 2018.](#)
 - [Myeloma: diagnosis and management](#), NICE Guideline (NG35), October 2018.
 - [Pancreatic cancer in adults: diagnosis and management](#), NICE Guideline (NG85), February 2018.
 - [Oesophago-gastric cancer: assessment and management in adults](#), NICE Guideline (NG83), January 2018.
 - [Advanced Breast Cancer: diagnosis and management](#), Clinical Guideline (CG81) NICE, August 2017.
 - [Non-Hodgkin's lymphoma: diagnosis and management](#), Clinical Guideline (NG52). NICE, July 2016.
 - [Bladder cancer: diagnosis and management](#), NICE guideline (NG2), February 2015.
 - [Lung Cancer: diagnosis and management](#), NICE Guideline (NG122). NICE, March 2019.
 - [Ovarian Cancer: recognition and initial management](#), NICE Clinical Guideline (CG122), April 2011
 - [Metastatic malignant disease of unknown primary origin in adults: diagnosis and management](#), Clinical Guideline (CG104) NICE, July 2010.
 - [Improving Outcomes for people with Sarcoma](#), Cancer Service Guideline (CSG9) NICE, March 2006.

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- [Improving Outcomes in head and neck cancers](#), Cancer Service Guideline (CSG6) NICE, November 2004.
- **Relevant Scottish Medicine Consortium (SMC) policies**
 - [PET-CT Guidelines](#), Scottish Clinical Imaging Network (SCIN), NHS Scotland.
 - [PET-CT Review of Indications report V2.0](#), Scottish Clinical Imaging Network (SCIN), NHS Scotland, July 2017.
- **Relevant NHS England policies**
 - [NHS England » Service specification: positron emission tomography – computed tomography \(PET CT\) scanning \(all ages\)](#) NHS Standard Contract, NHS England, Service Specification, 2024.
- **Other published documents**
 - [Evidence-based indications for the use of PET-CT in the United Kingdom, 2016](#). The Royal College of Radiologists. BFCR (16)3. 2016
 - [PET-CT in the UK. A strategy for development and integration of a leading edge technology within routine clinical practice](#). The Royal College of Radiologists. (August 2005).

2. Service Delivery

The NHS Wales Joint Commissioning Committee will commission the service of PET-CT for all ages in line with the criteria identified in this specification.

2.1 Access Criteria

This specification covers both children and adults who meet the criteria for treatment as defined in NWJCC Commissioning policy for Positron Emission Tomography (PET), (CP50).

2.2 Service description

The service will be viewed as part of an all-Wales PET-CT provision, and not a local regional service. All sites will actively co-operate with one another to ensure that patients receive the same turnaround and quality of service throughout Wales. For example, in the case of service interruption and scanner failure at one site, another service provider will be expected to actively cross cover to scan patients in order of clinical need and not by geographical location. For example, patients referred to PETIC which is currently the only fixed site in Wales (as of 2024) will need to go elsewhere, for example, NHS England or to another fixed PET Scanner in Wales, when one becomes available.

Although the imaging may be performed in a variety of centres, this should be viewed as one service with equal access for all patients and as far as possible the same acquisition protocols and reporting criteria.

All PET service providers should work together to ensure that they are interpreting and implementing the NWJCC commissioning policy for Positron Emission Tomography (CP50) consistently.

In addition to the standards stated within the commissioning contract that NWJCC holds with each PET site, specific quality standards and measures will be expected.

PET-CT is an imaging technique that makes use of radioisotopes or “PET radiopharmaceuticals”. This aspect of the scanning methodology means that PET-CT is a highly technical and highly specialised technique. This means that specialised staff, equipment, facilities and other arrangements are required in order to run a service, that answers the regulations and requirements applicable to the use of PET radiopharmaceuticals.

The provider must therefore meet the standards as set out below:

2.2.1 Handling of Radiopharmaceuticals

Legislation, licencing and permits

- Ionising radiation from any source is potentially hazardous, and its use is highly regulated through specific legislation. For radiopharmaceuticals, this includes institutional licences for purchase, receipt, storage, administration and disposal, as well as individual practitioner licences for prescription. As recipients, sites have duties under Carriage of dangerous goods:
- [The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 \(legislation.gov.uk\)](https://www.legislation.gov.uk)

The service provider must ensure there are systems in place to obtain the suitable permits from the relevant UK environment agency to cover the storage of material and waste accumulation and disposal. A Quality Management System covering these aspects is required to demonstrate compliance with the following:

- [The Ionising Radiations Regulations 2017 \[IRR2017\]](#)

Administration of radioactive substances requires the service provider to obtain consent from the Health and Safety Executive (HSE).

[The Ionising Radiation \(Medical Exposure\) Regulations 2024 \[IR\(ME\)R2024\]](#)

To be able to administer radioactive substances to patients, the service provider must ensure:

- they have an IR(ME)R Employer Licence, that includes the relevant procedure, specifically for the site at which the administrations will take place, **and**
- there is at least one clinician with an IR(ME)R Practitioner Licence that includes the relevant procedure.

These are commonly referred to as “ARSAC licences”. Both licences are obtained by application to the [Administration of Radioactive Substances Advisory Committee \(ARSAC\)](#). To be successful, applications must demonstrate adequate facilities, procedures and support staff (Employer Licence) and knowledge, training and experience (Practitioner Licence).

[The Environmental Permitting \(England and Wales\) Regulations 2016 \[EPR\]](#)

The service provider must ensure that the site at which the administrations will take place has an environmental permit, which is issued for sites within Wales by [Natural Resources Wales \(NRW\)](#). The permit specifies which radionuclides and activities can be kept, used and disposed of. Applications to NRW must demonstrate adequate storage facilities, procedures and staffing. For the purposes of disposals to drain (mainly from patient excreta), an environmental impact assessment will be required, which looks at doses to the public resulting from disposal.

Storage and disposal

Storage of the radiopharmaceutical (when supplied as a single dose in a vial) prior to use should be in the local Nuclear Medicine Department with the necessary controls in place for record-keeping and safe storage at the required temperature. Attention should also be paid to the radiopharmaceutical calibration and expiry dates. Waste is typically stored in a dedicated Decay Store prior to disposal. Drawing up of the patient dose should conform to the UK Radiopharmacy Group (UKRG), 2012, guidelines for “Safe drawing up of radiopharmaceuticals in nuclear medicine”⁸.

2.2.2 Patient Facilities

Facilities accessed by patients at a PET-CT service include reception area, an uptake room where a radiopharmaceutical is administered, the scanning room, corridors and specific “hot toilet” facilities. The service provider needs to:

- Meet the technical standards in accordance with the equipment specification and equipment supplier’s service delivery model.
- Have formal, detailed contingency plans and contracts in place to ensure that patient treatment can continue in the event of technical interruptions and/or breakdown, in order to minimise treatment delays and interruptions. This includes detailed contingency plans in the event of both gantry and cyclotron failure.
- Have adequate facilities for the administration of PET radiopharmaceuticals.
- Have appropriate waiting facilities, toilets and waste disposal arrangements – in line with the above regulatory requirements.
- Ensure that any mobile PET-CT facilities are sufficiently linked to the main health board imaging services for reporting.
- Provide facilities that are accessible by disabled patients, even if this requires referral to another centre.
- Ensure that any radioactive material left on site will be done with mutual agreement, in consultation with local managers, Radiation Protection Advisers and/or Radioactive Waste Advisers.
- Ensure that appropriate environmental permitting arrangements (i.e. under EPR2016) are agreed to ensure that accumulation and disposal of radioactive substances is adequately covered.

2.2.3 Equipment

Equipment used by a PET-CT service is highly technical and ranges from the PET-CT scanner itself, through to radiopharmaceutical injectors. The service provider needs to:

- Ensure that all equipment complies with radiation protection, medical device, health and safety and other relevant legal requirements and standards.

⁸ UK Radiopharmacy Group 2012

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- Ensure that all equipment will be optimised for paediatric use and use specific paediatric software
- Ensure that the technical specification of the scanner will always include as a minimum standard:
 - A CT component with minimum 16 slice capability
 - 3D Reconstruction capability
 - The facility to manipulate image data / view and report image data.
- Ensure they are capable of imaging a minimum of 18 patients per day when using 3D/4D scanning from cranium to mid-thigh and 3D/4D reconstruction.
- Make available on the scanner site emergency resuscitation equipment and drugs, and all other safety related equipment needed for fire and medical emergencies.
- Ensure that relevant and appropriate maintenance and quality control checks are carried out on all equipment.
- Ensure that all paperwork is available for audit.

2.2.4 Specialist teams

Service providers of PET-CT must ensure the following key duty holders have been appointed:

Key Duty Holder	Responsible for	Knowledge and skills/certification	On site during scanning
Practitioner* (ARSAC licence holder)	The clinical aspects of the scanning, including: <ol style="list-style-type: none">1. Review of a referral request and consideration against the commissioning policy (CP50a)2. Authorisation and justification of scan requests.	IR(ME)R Practitioner Licence for PET-CT ("ARSAC licence")	Contactable for all activity.
Radiation Protection Adviser (RPA)	Advising the employer on compliance with IRR2017.	RPA Certificate of Competence issued by an assessing body recognised by the HSE (e.g., RPA2000).	Contactable
Medical Physics Expert* (MPE)	Optimisation of scanner, equipment QA, compliance with IR(ME)R 2024.	MPE Certificate of Competence issued by RPA2000.	Contactable

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Radioactive Waste Advisor (RWA)	Advising the employer on compliance with EPR2016 and the environmental permits issued under EPR2016 in respect of accumulation, storage and disposal of radioactive materials	RWA Certificate of Competence issued by RPA2000	No
Operators	Administering the radiopharmaceutical Defined in IR(ME)R2024 Clinical Evaluation of Imaging Data	Local training	Yes – direct contact with patients during scanning.

To provide a PET service, the service provider needs to ensure they have a specialist team of staff appropriately trained in the use of PET-CT.

The specialist team should include:

- consultant radiologists specialising in PET-CT imaging or nuclear medicine physicians specialising in PET-CT imaging
- nuclear medicine technologists and/or radiographers
- medical physics experts in nuclear medicine and CT
- clinical scientists specialising in nuclear medicine
- Radiation Protection Adviser (RPA)
- Radiation Waste Adviser (RWA)
- administrative support.

2.2.5 Staffing

The service provider needs to:

- use qualified PET reporters, these can be local or outsourced PET reporters or a combination of both who undertake 'clinical evaluation of the imaging outcomes' (images and data)
- have access to additional members as and when appropriate. This includes:
 - anaesthetists
 - qualified nurses
 - medical engineers
 - any other specialist deemed appropriate for service implementation
- meet the national standards for training and practice of the relevant professional bodies (equivalent to, for example, Royal College of Radiologists (RCR)⁹, Society

⁹ <https://www.rcr.ac.uk/>

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and College of Radiographers (SCoR), Institute of Physics and Engineering in Medicine (IPEM)

- have demonstrated processes for the management of risk to staff.

2.2.6 Acceptance of referrals and pre-scan assessment

The referrer will:

- check the indication is clinically appropriate and is covered by the current NWJCC Commissioning Policy for Positron Emissions Tomography (CP50) or has an approved IPFR application
- complete the relevant referral form fully, including mandatory fields and be available to answer any queries relating to the referral.

A gatekeeper will:

- check all relevant clinical information has been received from the referring clinician and that the referral form has been completed correctly.

A gatekeeper who is an IR(ME)R practitioner and/or ARSAC licence holder will:

- liaise with the referring clinician if the request for PET-CT falls outside of the current list of PET indications
- ensure patients are matched to the NWJCC commissioning Policy and referred to the most appropriate facility based on access and clinical need.

The IR(ME)R Practitioner Licence holder will:

- ensure referrals are clinically indicated and justified
- ensure the indication is covered by the current NWJCC Commissioning Policy for Positron Emissions Tomography (CP50a)
- liaise with the referrer if clinical information on the referral is insufficient or not clinically appropriate.

The service provider:

- should have a secure means by which it can accept appropriate referrals
- will ensure that the medical exposure to any patient to ionising radiation is justified and authorised in accordance with Regulation 11 of IRMER2024
- will assess the patient to identify contra-indications to the administration of the relevant tracer and/or the scan.

<https://www.sor.org/>

<https://www.ipem.ac.uk/>

<http://www.legislation.gov.uk/ukxi/2000/1059/contents/made>

Prior Imaging

The accurate interpretation of PET-CT scans relies on assessment of clinical information and prior images.

The service provider should:

- obtain all relevant prior imaging and reports before any new scans are undertaken, where possible and practicable
- take responsibility for accessing all of the relevant prior imaging before the patient is scanned (to allow the reporting radiologist access to all of the relevant imaging in order to provide an accurate and comprehensive report).

The referring clinician should ensure that all previous imaging and reports are made available in a timely manner.

Provision of pre and post scan information

Before the PET-CT scan, the service provider should ensure that patients and/or carers are given information in a format appropriate to their needs on:

- the relative risks and benefits of the scan
- the scan and the time, place and location
- appropriate preparation / instructions for the scan.

2.2.7 Diagnostic Reports

The service provider will ensure that all staff producing diagnostic reports (clinical evaluations) are adequately trained and are able to demonstrate continued competency in line with the appropriate bodies' guidelines¹⁰.

PET service providers are actively encouraged to assist each other at times where one centre has a longer waiting time. If a scan/ patient is transferred to another centre, then the receiving centre takes full responsibility for all aspects of the scan and reporting. The scan should be treated as if the patient had been directly referred to the receiving/ accepting centre. IR(ME)R responsibility and responsibility for reporting (also known as clinical evaluation under IR(ME)R lies with the receiving/ scanning centre.

2.2.8 Radiation dose

Patients referred for a PET scan will receive a dose of radiation. The total PET-CT dose is a combination of PET emission scan dose and CT transmission scan dose. The typical

¹⁰ <https://www.rcr.ac.uk/>
<https://www.sor.org/>

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injected activities for ¹⁸F labelled radiopharmaceuticals are between 150–400 MBq. This relates to an adult, whole-body, effective dose range of around 3–8 mSv.

A relatively low-dose CT (~5 mSv) is also acquired predominantly for attenuation correction and for anatomic localisation of the ¹⁸F labelled radiopharmaceuticals uptake. However, if detailed morphological analysis is required, especially with liver and spleen, currently low-dose CT in PET-CT may be followed by standard contrast-enhanced CT (~16 mSv typical). CT scanning can account for around 50–80% of the combined PET-CT patient dose; however, automatic exposure control techniques should be used to reduce diagnostic CT doses (~ 8 mSv). Accordingly, protocol-dependent effective doses arising from whole-body PET-CT scanning are typically in the range of 8–24 mSv.

The radiation burden from multiple radiological investigations can be substantial, leading to increased risk of potentially fatal interval cancers compared with the rest of the population. Consideration is made for reducing radiation dose, whenever possible, without compromising diagnostic quality. Scanning routinely extends from the base of brain to top of thighs unless there is a reason to include imaging of the brain and lower limbs.

Referrals for the clinical indications listed in this document are justified as showing a sufficient net benefit to patients, giving appropriate consideration to the risks from exposure to ionising radiation.

2.2.9 Information Management & Technology (IM&T)

The service provider will ensure that:

- referral information, images and reports can be received and delivered in electronic format that is compatible with patient information systems
- they comply with the information governance and GDPR requirements of the referring organisation for personal identifiable data.
- clinical practice and the handling of associated patient datasets should be covered by explicit information governance arrangements and must comply with GDPR and data protection legislation.

2.2.10 Anaesthetic and/or Sedation

The patient must be referred to an appropriate tertiary facility with specialist capability to provide anaesthetics or sedation. The service provider must ensure when a PET-CT patient requires local anaesthetics and/or sedation it will be given in accordance with the National Minimum Standards, which includes statutory requirements.¹¹

¹¹ [Chapter 10: Guidelines for the Provision of Paediatric Anaesthesia Services 2020 | The Royal College of Anaesthetists](#)

Paediatric specific Anaesthesia

Where a paediatric patient requires anaesthesia to undergo a PET-CT the patient must be referred to an appropriate tertiary facility with specialist capability to provide. The service provider must ensure that the patient is cared for in suitable facilities and by appropriately trained and experienced members of staff.¹²

2.2.11 Clinical Safety and Medical Emergency Measures

The service provider will:

- ensure they operate within a clinically safe environment, with safe practices
- have adequate levels of equipment to deal effectively with medical emergencies
- ensure that all staff are appropriately trained and accredited and hold a Life Support certificate which meets the standards set out by the Resuscitation Council (www.resus.org.uk)
- have at least one member of staff qualified to Intermediate Life Support (ILS) level
- ensure all medicines and PET radiopharmaceuticals are managed safely and securely, in accordance with local radiological rules and relevant consents and law
- be responsible for arranging and rehearsing medical emergency procedures on site
- ensure they have access to a medical emergency response 'crash team'.

2.2.12 Clinical Standards

The service provider needs to:

- ensure that all equipment is provided and maintained to an adequate minimum level to fulfil the standards outlined within this Specification (including the ability to perform scans using intravenous and oral contrast medium)
- equipment should be subject to quality assurance and quality control as per recommendations of manufacturers, regulatory groups/bodies and Medical Physics Experts to ensure minimum standards of operations are maintained in line with legal, professional, industry and manufacturers specifications and under the supervision of a Medical Physics Expert
- be accredited and inspected by the appropriate regulatory bodies
- participate in national quality assurance programmes
- ensure the protection of children and adults at risk is in line with the requirements of the Welsh legislative frameworks including "in Safe Hands (Adult protection process in Wales – 2000) and "Review of Safe Hands – 2010" and safeguarding in Wales (Children and Young People) 2018
- demonstrate processes are in place for the management of risk to patients.

¹² [Chapter 10: Guidelines for the Provision of Paediatric Anaesthesia Services 2020 | The Royal College of Anaesthetists](#)

Paediatric specific clinical standards

Paediatric services will need to be delivered at specialist centres.

The service provider needs to:

- ensure that specialist paediatric anaesthesia is available if required, including induction and recovery rooms
- ensure that all clinical staff who have any contact with children, young people have up-to-date level 2 training in child protection¹³
- services should therefore be organised and delivered through “integrated pathways of care” ([National Service Framework for children, young people and maternity services](#) (Department of Health & Department for Education and Skills, London 2004)).

2.2.13 Training and Education

The service provider needs to ensure that:

- appropriate registrations of team members are in place
- training and continued professional development should be undertaken by all staff involved in the delivery of PET-CT
- teaching and research are integral parts of the PET service provision and services should seek to participate in research and innovation activities, wherever possible. they actively participate in the teaching and training of staff from all disciplines and all levels. This includes undergraduate medical and radiography students, trainee clinical scientists, radiologists at core and higher level, where appropriate production staff and engineers.

2.2.14 Research

Service Providers should:

- actively engage in and seek to actively support research
- seek to actively foster their own research programmes.

2.3 Relationships with other services or providers

- NHS Trusts, Referring Clinicians, Reporting Clinicians, Multidisciplinary Teams, Royal Colleges, Cancer Registries, Cancer Networks, Cardiac Networks, Old Age Psychiatry Networks, Commissioning Organisations, Radiotherapy Services, Clinical Networks, Research Institutions, Specialist out-patient anaesthetic services, NHS England, NHS Isle of Man, Research Funders, Private Healthcare Providers, Suppliers of Radiopharmaceuticals, Shared Services.

¹³ [Safeguarding Children and Young People: Roles and competencies for healthcare staff | RCPCH](#)

2.4 Exclusion Criteria

Any indication not defined in NWJCC [Commissioning policy for Positron Emission Tomography \(PET\), CP50](#)

2.5 Acceptance Criteria

The service outlined in this specification is for patients ordinarily resident in Wales, or otherwise the commissioning responsibility of the NHS in Wales. This excludes patients who whilst resident in Wales, are registered with a GP practice in England, but includes patients resident in England who are registered with a GP Practice in Wales.

2.6 Service provider/Designated Centre

Patient catchments for Powys postcodes are described in Annex i.

Patients who are deemed not suitable for scanning at local centres or where there is a highly specialised clinical reason for the scan should be referred to a centre with appropriate facilities.

Briefly:

Clinicians in South East Wales, and parts of Mid Wales should refer their patients to:

- Wales Research and Diagnostic PET Imaging Centre (PETIC) University Hospital of Wales
Heath Park
Cardiff
CF14 4XN

Referral forms, contact details and further information on PETIC can be found on the PETIC website at [Wales Research and Diagnostic PET Imaging Centre - Cardiff University](#)

Clinicians in South West Wales, and parts of Mid Wales should refer their patients to:

- Nuclear Medicine
Singleton Hospital
Sketty Lane
Swansea
SA2 8QA

Referral forms, contact details and further information can be found on the PETCT Swansea Website at: [Home Page - PETCT-Swansea.org.uk](#)

Clinicians in North Wales and parts of Mid Wales should refer their patients to:

- Nuclear Medicine
Wrexham Maelor Hospital
Croesnewydd Road
Wrexham
LL13 7TD

Referral forms, contact details and further information for the North Wales PET-CT service are included in Annex ii.

The patient flow for mid Wales should generally follow the pattern for cancer referral to the north and south Wales specialist centres. Patients from mid Wales who would otherwise be referred to the Royal Shrewsbury Hospital for specialist treatment should be referred to north Wales for PET scans.

2.7 Exceptions

If the patient does not meet the criteria for treatment as outlined in this policy, an Individual Patient Funding Request (IPFR) can be submitted for consideration in line with the All Wales Policy: Making Decisions on Individual Patient Funding Requests. The request will then be considered by the All Wales IPFR Panel.

If the patient wishes to be referred to a provider outside of the agreed pathway, an IPFR should be submitted.

Further information on making IPFR requests can be found at: [Individual Patient Funding Requests](#)

3. Quality and Patient Safety

The provider must work to written quality standards and provide monitoring information to the lead commissioner. The quality management systems must be externally audited and accredited.

The centre must enable the patients, carers and advocates informed participation and to be able to demonstrate this. Provision should be made for patients with communication difficulties and for children, teenagers and young adults.

3.1 Quality Indicators (Standards)

The service provider should perform quality assurance on PET-CT equipment in line with the Institute of Physics and Engineering in Medicine (IPEM) report "Quality Assurance of PET and PET/CT Systems"¹⁴.

3.2 Provider Outcomes

The service provider will ensure that all mandatory datasets and surveys are collected and reported in a format that is compatible with recipients systems.

The service provider should have:

- a structured clinical outcomes collection and analysis programme
- a Performance Management Monitoring dataset for collection of activity
- an audit practice to inform change
- a process to collect patient satisfaction data
- described links to clinical trials, national registries and academic studies.

3.3 Cancer Waiting Times

The service provider should have regard to the fact that PET-CT Scanning waiting times impact on the Wales single cancer pathway¹⁵ waiting times.

3.4 Applicable National Standards

The service provider will deliver PET-CT scans to the adult and paediatric population of Wales in accordance with the requirements as set out in this Service Specification and current industry guidelines and legislation. Some patients may require scanning at PETIC, dependent on the clinical condition or procedure required.

¹⁴ [IPEM > Home](#)

¹⁵ <http://www.walescanet.wales.nhs.uk/single-cancer-pathway>

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The service provider should also:

- be accredited by relevant national regulatory authorities
- be fully compliant with the Ionising Radiation (Medical Exposure) Regulations 2024¹⁶ and Ionising Radiations Regulations 2017¹⁷ (see section 2.2.1)
- provide treatment to patients in accordance with the nationally agreed (NCRI, CCL, CSG and NHRC) clinical trial protocols within the UKCRN Study Portfolio and guidelines¹⁸ (CCLG) where these exist
- ensure protection of children and other vulnerable people in line with national standards:
- The Wales Safeguarding Procedures (2019)
 - The Royal College of Radiologists: [Good Practice Guide for Paediatric Radiotherapy, 2018](#)
 - Royal College of Anaesthetists: [Guidance on the provision of paediatric anaesthesia services, 2019](#).
- meet the national standards of the relevant professional bodies (equivalent to, for example, [Royal College of Radiologists](#) (RCR), [Society and College of Radiographers](#) (SCoR) and [Institute of Physics and Engineering in Medicine](#) (IPEM)
- comply with the appropriate data protection and information governance requirements (see: [NHS Wales Informatics Service | Information Governance](#)).

3.5 Clinical Audit

Each centre should be able to demonstrate that they have appropriate mechanisms in place to ensure the quality of their reports and should include a procedure describing clinical audit in their IR(ME)R employer's procedures. This may take the form of a formal programme of double reading of reports, intermittent audits of double reading, or regular discrepancy meetings.

The service provider needs to ensure that an appropriate system of clinical governance is in place which includes the following:

- Reporters should be radiologists who have undergone subspecialty training in PET and Nuclear medicine imaging and where possible should hold or be eligible to hold an ARSAC practitioner licence in FDG PET oncology imaging. Other radiologists with appropriate training may work under the supervision of an ARSAC practitioner.
- Consideration should be given to mentoring of new members of staff by initially double reading their reports. This should also be offered to staff returning from significant absences.

¹⁶ [The Ionising Radiation \(Medical Exposure\) Regulations 2017](#)

¹⁷ [The Ionising Radiations Regulations 2017](#)

¹⁸ [Home – UK Clinical Trials Gateway](#)

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- If an external outsourcing company is used for reporting, the centre should make reasonable attempts to ensure that the outsourcing company/ individual is also trained and subject to quality assurance.
- At present it is not a formal requirement for centres to participate in double reading audits but these are strongly encouraged and a formal process of double reading for all Welsh PET centres is viewed as an aspirational goal.
- As a minimum each centre and radiologist should be actively engaged in a PET specific “REALM” learning meeting to discuss interesting cases and other discrepancies. Engagement of PET radiologists in MDTs is also viewed as an important means of obtaining feedback as regards the outcomes of cases.
- Each centre will fulfil its obligations as required under the duty of candour. In addition to considering discrepancies each centre will be responsible for considering all cases of “error” leading to “moderate or severe harm”. These cases will be reported to JCC in addition to other statutory obligations.
- For each facility, there is a requirement to collect data on the Referral, ICD10 code and PET-CT acquisition for national surveys and in response to any reasonable requests from time to time or each facility, provide clinical audit and activity data to the Regional Cancer Registry that is responsible for the region in which the relevant facility is located, and any relevant national registries on a routine basis (at least monthly), and in response to any reasonable requests from time to time or each facility provide Diagnostic Imaging Dataset data (DID) on NHS patients extracted and submitted monthly as defined by the Information Standards Board or Health and Social Care.
- The Service Provider should have in place a quality assurance programme sufficient to provide assurance of the quality of the service and images, this needs to include routine quality assurance of the 3D scanning process.

3.6 Law and Consents

The Consents and Law required are as follows:

- Ionising Radiations Regulations 2017¹⁹
- Environmental Permitting (England and Wales) Regulations (EPR) 2016²⁰ and as amended
- Medicines Act 1968 (as amended)²¹
- Ionising Radiation (Medical Exposure) Regulations 2017²² and 2024²³

¹⁹ [The Ionising Radiations Regulations 2017](#)

²⁰ <http://www.legislation.gov.uk/ukxi/2016/1154/contents/made>

²¹ <http://www.legislation.gov.uk/ukpga/1968/67>

²² [The Ionising Radiation \(Medical Exposure\) \(Amendment\) Regulations](#)
<https://www.gov.uk/government/publications/ionising-radiation-medical-exposure-regulations-2017-guidance/guidance-to-the-ionising-radiation-medical-exposure-regulations-20172024>
<https://www.hse.gov.uk/radiation/ionising/legalbase.htm>

²³ [The Ionising Radiation \(Medical Exposure\) \(Amendment\) Regulations 2024](#)

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- The Carriage of Dangerous Goods & Use of Transportable Pressure Equipment Regulations 2009²⁴.

The following permits are required under the EPR 2016:

- permit for the use of radioactive materials and any mobile radioactive apparatus and/or
- permits for the disposal and accumulation of radioactive waste and the following Consents under the Ionising Radiation (Medical Exposure) Regulations 2017 (as amended).

3.7 Quality Requirements of the Diagnostic Report

Any patient undergoing a PET-CT scan in Wales should expect the scan to be reported to the same high standard, regardless of the location at which they had their scan performed.

An accurate, relevant, concise and succinct Diagnostic Report will be sent to the referring clinician, in accordance with professional guidelines under the Society of Nuclear Medicine and European Association of Nuclear Medicine guidance (www.snm.org and www.eanm.org) and "Reporting and Interpretation of Imaging Investigations" as published by the Royal College of Radiologists (www.rcr.ac.uk).

3.8 Quality Requirements of Activity Outputs

The service provider will ensure the referring clinician receives the Activity Output to agreed or mandated timescales or in line with clinical appropriateness.

The service provider will communicate any unusual, unexpected, urgent, or clinically significant findings that may require immediate or urgent clinical decisions in accordance with local guidance for red flag findings.

3.9 Quality Assurance

The service provider shall:

- be clinically and managerially responsible and accountable for any scan carried out on the patient
- operate an effective, comprehensive, clinical governance system with clear channels of accountability and supervision that reduces the risk of clinical system failure
- continuously monitor clinical performance and evaluate unexpected clinical complications/adverse events arising from any scan. This shall also include, where

²⁴<http://www.legislation.gov.uk/uksi/2009/1348/contents/made>

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relevant an evaluation of the accuracy of investigation interpretations and the contribution of the report to answering the clinical question posed, the clinical appropriateness of examinations undertaken, and any further investigations suggested

- audit clinical care against standards and use appropriate formal methods such as root cause analysis for untoward incidents
- report incidents to NWJCC as appropriate.

3.10 Good Clinical Industry Practice

The service provider will comply with good clinical industry practice which may include but is not limited to: standards for better health, relevant NICE guidance, Quality Standards in Imaging Quality Mark (IQM), latest Medicines and Healthcare products Regulatory Agency (MHRA) guidance/technical notices.

3.11 Other Qualities Requirements

- the service provider will have a recognised system to demonstrate service quality and standards
- the service will have detailed clinical protocols setting out nationally (and local where appropriate) recognised good practice for each treatment site
- the quality system and its treatment protocols will be subject to regular clinical and management audit
- the service provider is required to undertake regular patient surveys and develop and implement an action plan based on findings.

4. Performance Monitoring and Information Requirement

4.1 Performance Monitoring

NWJCC will be responsible for commissioning services in line with this policy. This will include agreeing appropriate information and procedures to monitor the performance of organisations.

For the services defined in this policy the following approach will be adopted:

- service providers to evidence quality and performance controls
- service providers to evidence compliance with standards of care.

NWJCC will conduct performance and quality reviews on an annual basis.

4.2 Key Performance Indicators

The providers will be expected to monitor against the full list of Quality Indicators derived from the service description components described in Section 2.2.

The provider should also monitor the appropriateness of referrals into the service and provide regular feedback to referrers on inappropriate referrals, identifying any trends or potential educational needs.

In particular, the provider will be expected to monitor against the following target outcomes:

- Patients on the suspected cancer pathway (FDG/PSMA staging and diagnosis) – number and percentage reported within 10 working days from receipt of referral. Target: 90%.
- The service will also shadow report performance against the SCP standard of 7 calendar days from receipt of referral to report. It is anticipated the SCP target will replace the current 10 working days target over the next 2 years.
- Other urgent scans (PSMA Biochemical recurrence, Choline Prostate (Biochemical Recurrence), FDG infection and inflammation) - number and percentage reported within 10 working days from receipt of referral. Target: 90%.
- Routine scans (FDG Cardiac Sarcoid, FDG Dementia, FDG Epilepsy, Beta Amyloid, Choline Parathyroid) – number and percentage reported within 8 weeks from receipt of referral. Target: 90%.

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4.3 Date of Review

This document is scheduled for review every three years, unless information is received which indicates that the policy requires revision.

If an update is carried out, this version of the policy will remain extant until the revised policy is published.

5. Equality Impact and Assessment

The Equality Impact Assessment (EIA) process has been developed to help promote fair and equal treatment in the delivery of health services. It aims to enable NHS Wales Joint Commissioning Committee to identify and eliminate detrimental treatment caused by the adverse impact of health service policies upon groups and individuals for reasons of race, gender re-assignment, disability, sex, sexual orientation, age, religion and belief, marriage and civil partnership, pregnancy and maternity and language (Welsh).

This policy has been subjected to an Equality Impact Assessment.

The Assessment demonstrates the policy is robust and there is no potential for discrimination or adverse impact. All opportunities to promote equality have been taken.

6. Putting Things Right

6.1 Raising a Concern

Whilst every effort has been made to ensure that decisions made under this policy are robust and appropriate for the patient group, it is acknowledged that there may be occasions when the patient or their representative are not happy with decisions made or the treatment provided.

The patient or their representative should be guided by the clinician, or the member of NHS staff with whom the concern is raised, to the appropriate arrangements for management of their concern.

If a patient or their representative is unhappy with the care provided during the treatment or the clinical decision to withdraw treatment provided under this policy, the patient and/or their representative should be guided to the LHB for [NHS Putting Things Right](#). For services provided outside NHS Wales the patient or their representative should be guided to the [NHS Trust Concerns Procedure](#), with a copy of the concern being sent to NWJCC.

6.2 Individual Patient Funding Request (IPFR)

If the patient does not meet the criteria for treatment as outlined in this policy, an Individual Patient Funding Request (IPFR) can be submitted for consideration in line with the All Wales Policy: Making Decisions on Individual Patient Funding Requests. The request will then be considered by the All Wales IPFR Panel.

If an IPFR is declined by the Panel, a patient and/or their NHS clinician has the right to request information about how the decision was reached. If the patient and their NHS clinician feel the process has not been followed in accordance with this policy, arrangements can be made for an independent review of the process to be undertaken by the patient's Local Health Board. The ground for the review, which are detailed in the All Wales Policy: Making Decisions on Individual Patient Funding Requests (IPFR), must be clearly stated.

If the patient wishes to be referred to a provider outside of the agreed pathway, and IPFR should be submitted.

Further information on making IPFR requests can be found at: [Individual Patient Funding Requests](#).

Annex ii – PET-CT patient referral form



Bwrdd Iechyd Prifysgol
 Betsi Cadwaladr
 University Health Board

PET/CT Patient Referral Form

<i>Please refer to page 2 for the contraindications to PET/CT</i>		<i>*Please complete all sections. Failure to do so may delay appointment being made*</i>																									
PATIENT DETAILS NHS No: Full Name Address Postcode Mobile No: Date of Birth: GP Practice Name and Address:		Patient Booking Information Trolley <input type="checkbox"/> Wheelchair <input type="checkbox"/> Walking <input type="checkbox"/> OP <input type="checkbox"/> IP <input style="background-color: yellow;" type="checkbox"/> Mobility Issues?: <input type="text"/> Ward / Hosp: <input type="text"/> Preferred Language: Welsh <input type="checkbox"/> English <input type="checkbox"/> NHS <input type="checkbox"/> Self Funded <input type="checkbox"/> Insured <input type="checkbox"/> Individual Funding Statement Research patient Yes <input type="checkbox"/> No <input type="checkbox"/> REC Trial No: Is an interpreter required? Yes <input type="checkbox"/> No <input type="checkbox"/> Is transport required? Yes <input type="checkbox"/> No <input type="checkbox"/> Patient Weight: <input type="text"/> Kg																									
Scan request (*tick) <input type="checkbox"/> ¹⁸ F-FDG <input type="checkbox"/> ¹⁸ F-FEC (choline) <input type="checkbox"/> ¹⁸ F-PSMA <input type="checkbox"/>		Reason for referral: (including relevant clinical and medical history, any surgery in last 6 weeks, current medication and correlative imaging): Proven Histology: <input style="width: 100%;" type="text"/>																									
<i>*The referrer is legally obliged under IR(ME)R to supply sufficient information to enable the examination to be justified. Incomplete or incorrectly completed requests will be returned*</i>																											
*Required Imaging and Surgery Information:		*Required Treatment Information:																									
No Imaging or Surgery* <input type="checkbox"/> (*tick)		No Chemo / Radiotherapy* <input type="checkbox"/> (*tick)																									
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 20%;"></th> <th style="width: 20%;">Date</th> <th style="width: 20%;">Body Area</th> </tr> </thead> <tbody> <tr> <td>Last CT Scan</td> <td><input type="text"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Last MRI Scan</td> <td><input type="text"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Pertinent Surgery</td> <td><input type="text"/></td> <td><input type="checkbox"/></td> </tr> </tbody> </table>			Date	Body Area	Last CT Scan	<input type="text"/>	<input type="checkbox"/>	Last MRI Scan	<input type="text"/>	<input type="checkbox"/>	Pertinent Surgery	<input type="text"/>	<input type="checkbox"/>	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 20%;"></th> <th style="width: 20%;">Chemotherapy</th> <th style="width: 20%;">Radiotherapy</th> </tr> </thead> <tbody> <tr> <td>Type</td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> <tr> <td>Cycle Length</td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> <tr> <td>Date of last Treatment</td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> </tbody> </table>			Chemotherapy	Radiotherapy	Type	<input type="text"/>	<input type="text"/>	Cycle Length	<input type="text"/>	<input type="text"/>	Date of last Treatment	<input type="text"/>	<input type="text"/>
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Last CT Scan	<input type="text"/>	<input type="checkbox"/>																									
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Pertinent Surgery	<input type="text"/>	<input type="checkbox"/>																									
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Notable Imaging findings: <input type="checkbox"/> <input type="checkbox"/>		Special Req: <input style="background-color: yellow;" type="checkbox"/> Tick:																									
Version 6a Jan 22 DJ		Scan W/C: <input type="text"/> Op.Date: <input type="text"/>																									

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	Date of next Treatment			
SAFETY CHECK:				
Could the patient be pregnant?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Is the Patient Diabetic?: Y <input type="checkbox"/> N <input type="checkbox"/>		
Is the patient incontinent?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Insulin <input type="checkbox"/> Tablet <input type="checkbox"/> Diet <input type="checkbox"/>		
Is the patient breast feeding?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Recent chest infections?: Y <input type="checkbox"/> N <input type="checkbox"/>		
Is the patient claustrophobic?	Yes <input type="checkbox"/> No <input type="checkbox"/>	State any Allergies:		
If Yes please specify:				

If Faxing Form: Please repeat-

PATIENT NAME:

DOB:

FUNDED CLINICAL INDICATION (NB: Refer to Current Welsh PET Access Policy):

(PLEASE STATE):

SPECIFIC CLINICAL CONTRAINDICATIONS TO PET/CT INCLUDE:

- Pregnancy or suspected pregnancy

Contraindications rendering the patient medically unfit to undergo the scan include:

- Chest drains in situ, Influenza, Chickenpox (Varicella Zoster Virus), Mumps, Clostridium Difficile, Whooping cough (Bordetella pertussis) Active Shingles (Herpes Zoster), Diphtheria (Corynebacterium diphtheriae)

Additional physical and technical contraindications to PET/CT include:

- 1. Inability to cooperate with the scan process** – For instance, inability (including repetitive coughing) to lie relatively still for **1 to 2 hours** and to lie supine for **30-60 minutes**
- 2. Blood Glucose Level (FDG only)** – If the patient’s blood glucose level is outside the *IR(ME)R practitioner’s* agreed limits. In patients with diabetes this must be adequately controlled prior to the attendance for the PET/CT. Uncontrolled blood glucose levels may result in sub-optimal or non-diagnostic image quality and therefore in these circumstances the patient’s appointment may be cancelled and re-scheduled for an alternative date when diabetic control has been established
- 3. Chemotherapy/Radiotherapy** – If the patient’s appointment date is outside the *IR(ME)R practitioner’s* agreed time limits
- 4. Patient body habitus above scanner dimensions** – Scanner bore diameter 70 cm (distance from scanner bed to roof of scanner approximately 50 cm). If it is uncertain if a patient’s body habitus will prevent us from proceeding with the scan the patient may be invited to attend the scanner prior to their appointment date to undergo a trial run through the scanner gantry.

<p>REFERRER DETAILS</p> <p>Print Name :</p> <p>Date of Referral:</p> <p>Consultant Name:</p>	<p>HOSPITAL BASE:</p> <p>Tel:</p> <p>Email:</p> <p>Referrer Signature:</p> <p>GMC Number:</p>
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Protocol and Justification: (Radiology Only):

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Protocol required:	Clinical Justification by IR(ME)R licensed practitioner or authorised delegated operator:
See attached justification e-mail	

Annex iii Codes

The list of ICD codes is indicative and is not exhaustive. Additional codes may be used for contract monitoring purposes, furthermore some codes may cover indications not included within this policy.

Code Category	Code	Description
OPCS	U10.4	Myocardial positron emission tomography
OPCS	U21.3	Positron tomography NEC
OPCS	U36.2	Positron emission tomography with computed tomography NEC

Annex iv Glossary

Administration of Radioactive Substances Advisory Committee – ARSAC

The Administration of Radioactive Substances Advisory Committee (ARSAC) is an advisory non-departmental public body of the government of the United Kingdom. It is sponsored by the Department of Health. The committee advises government on the certification of doctors and dentists who want to use radioactive medicinal products on people. Doctors and dentists who use radioactive medicinal products (radiopharmaceuticals) on people must get a certificate from health ministers. This certificate allows them to use radioactive medicinal products in diagnosis, therapy and research.

All Wales Positron Emission Tomography Advisory Group (AWPET)

AWPET is a subgroup of the Clinical Oncology Sub-Committee (COSC) of the Welsh Scientific Advisory Committee (WSAC). The group is tasked with reviewing the evidence base for PET-CT and advising NWJCC on the introduction of new indications, ensuring that all decisions are made following a systematic review of the available evidence.

Fluorodeoxyglucose (FDG)

A PET scan uses a small amount of a radioactive drug, or tracer, to show differences between healthy tissue and diseased tissue. The most commonly used tracer is called FDG (fluorodeoxyglucose), so the test is sometimes called an FDG-PET scan.

Individual Patient Funding Request (IPFR)

An IPFR is a request to NHS Wales Joint Commissioning Committee (NWJCC) to fund an intervention, device or treatment for patients that fall outside the range of services and treatments routinely provided across Wales.

Ionising Radiation (Medical Exposure) Regulations (IR(ME)R)

Medical ionising radiation is used widely in hospitals, dental care, clinics and in medical research to help diagnose and treat conditions. Examples are x-rays and nuclear medicine scans, and treatments such as radiotherapy. The regulations aim to make sure that it is used safely to protect individuals undergoing medical exposures from the risk of harm when being exposed to ionising radiation. They set out the responsibilities of duty holders (the employer, referrer, IR(ME)R practitioner and operators) for radiation protection and the basic safety standards that duty holders must meet.

Medicines and Healthcare products Regulatory Agency (MHRA)

The Medicines and Healthcare products Regulatory Agency regulates medicines, medical devices and blood components for transfusion in the UK.

Positron Emission Tomography – Computed Tomography (PET-CT)

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A PET-CT scan is a hybrid (nuclear medicine and CT) imaging technique that produces a three dimensional image or picture of functional processes in the body. The purpose of a PET-CT scan is to improve diagnosis and treatment planning for certain indications in cancer. PET-CT is a non-invasive imaging technique that combines information from two different modalities. PET provides information about functional and metabolic cellular activity, while a CT scanner gives precise anatomical localisation.

Positron Emission Tomography Imaging Centre (PETIC)

The Wales Research and Diagnostic Positron Emission Tomography Imaging Centre (PETIC) provides researchers and routine clinical positron emission tomography scanning services from the heath Hospital in Cardiff.

NHS Wales Joint Commissioning Committee (NWJCC)

NWJCC is a joint committee of the seven local health boards in Wales. The purpose of NWJCC is to ensure that the population of Wales has fair and equitable access to the full range of Tertiary Services. NWJCC ensures that services within our portfolio are commissioned from providers that have the appropriate experience and expertise. They ensure that these providers are able to provide a robust, high quality and sustainable services, which are safe for patients and are cost effective for NHS Wales.

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Contact Us

If you have a question related to this document you can contact us using one of the methods outlined below.

If you would like this document in an alternative format and/or language, please contact us for assistance.

Email:

NWJCC consultation mailbox – nwjccconsultation@wales.nhs.uk

Telephone:

General Enquiries – 01443 433112

Website:

[Contact us - NHS Wales Joint Commissioning Committee](#)

Writing:

If you wish to contact the NHS Wales Joint Commissioning Committee, you can write to us at one of our locations below, we welcome correspondence in Welsh or English:

South Wales Offices

Unit 1, Charnwood Court, Heol Billingsley, Nantgarw, CF15 7QZ

Unit G1 The Willowford, Main Avenue, Treforest Industrial Estate, Pontypridd, CF37 5YL

North Wales Offices

Unit 3, Media Point - Unit 3, Mold Business Park, Mold, CH7 1XY

Preswylfa, Hendy Road, Mold, CH7 1PZ