



**Humber Health
Partnership**

Leading Transformation in the Ultrasound Workforce

**Dr Pamela Parker
Consultant Sonographer, HUTH
BMUS Workforce Strategy Officer**

Declarations

- Head of Department –
Ultrasound Hull University
Teaching Hospitals
- Workforce Strategy Officer
BMUS
- Steering group NHSE
International Recruitment
project



Aims and Learning Outcomes

Why do we need transformation?

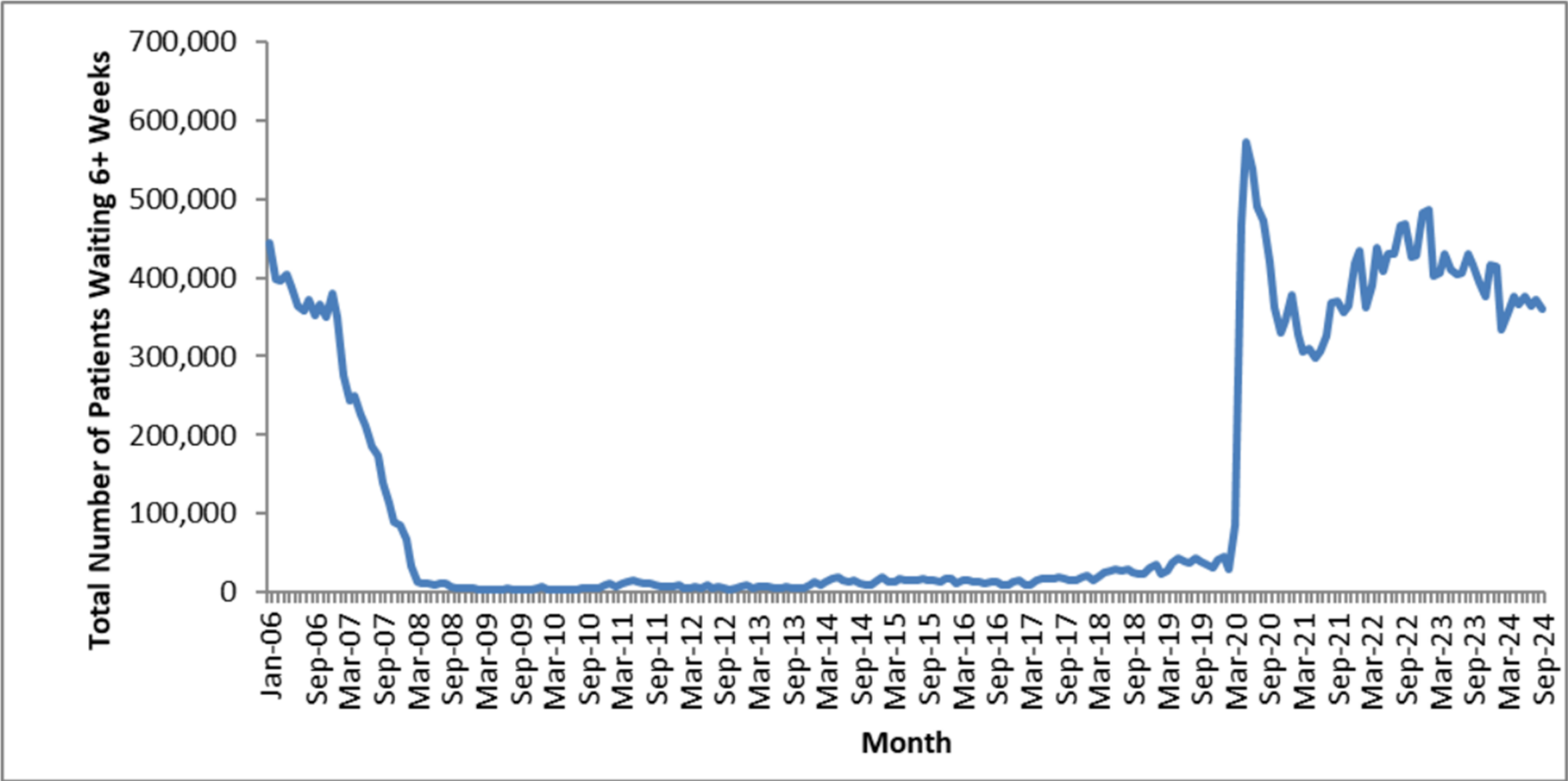
Recruitment

Retention

Role Extension & promotion

What difference can sonographers make to pathways

**Chart 1: Total number of patients waiting 6+ weeks at month end for all tests
January 2006 to September 2024**



U.K. turns to outsourcing to cope with 'chronic' staff shortages

Philip Ward
Jun 7, 2023



Outsourcing "is costing us a small fortune," said one clinical director. Source: RCR.

<https://www.auntminnieeurope.com/clinical-news/molecular-imaging/article/15657918/uk-turns-to-outsourcing-to-cope-with-chronic-staff-shortages>

The UK has a 29% shortfall of clinical radiologists, which will rise to 40% in five years without action.

By 2027, an additional

3,365

clinical radiologists will be needed to keep up with demand for services.

Health systems spent

£223m

managing excess reporting demand – equivalent to 2,309 full time consultant positions.

90%

of clinical directors are concerned that workforce shortages will impact patient safety.

100%

of clinical directors are concerned about staff morale and burnout in their department.

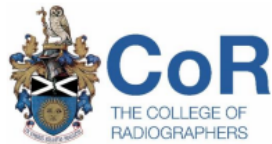
90%

of clinical directors who work with local diagnostic centres said that reporting scans for local diagnostic centres had increased their workload.

RCR Clinical Radiology Workforce Census 2022

The College of Radiographers

*Diagnostic Radiography
Workforce UK Census 2020*



The average current UK vacancy rate across respondents is 10.5% at the census date of November 2020.



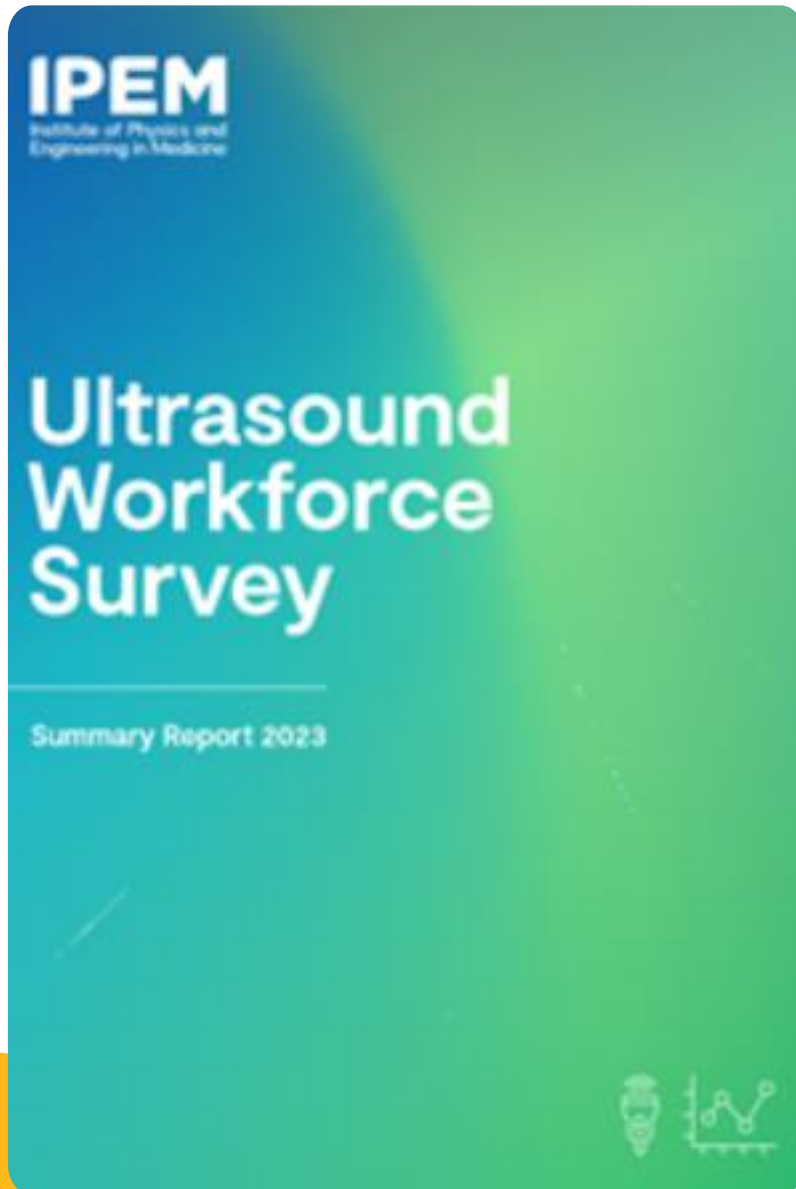
Securing the future workforce supply

Sonography workforce review



March 2017

www.cfwl.org.uk



- Headline vacancy rate of 24% for Ultrasound Scientists
- Lack of very senior Ultrasound Scientist positions becomes a barrier when medical physicists are deciding on career options.



Unfilled vacancies

- Aging workforce
- Aging population with poorer health
- Lack of training capacity within NHS
- Difficulty to retain staff within the NHS (often a direct result of competition from the private sector due to competitive salaries)

<https://www.bmus.org/mediacentre/news/bmus-response-to-nhs-10-year-plan/>

04.12.2024

Age Profile



<https://www.belfasttelegraph.co.uk/news/world-news/oap-webcam-couple-are-youtube-stars/28658465.html>

- 24% of the sonographer workforce is aged 51-60,
- The implications for the workforce in the coming years is potentially huge.

<https://www.bmus.org/mediacentre/news/bmus-response-to-nhs-10-year-plan/>

Current position.....?



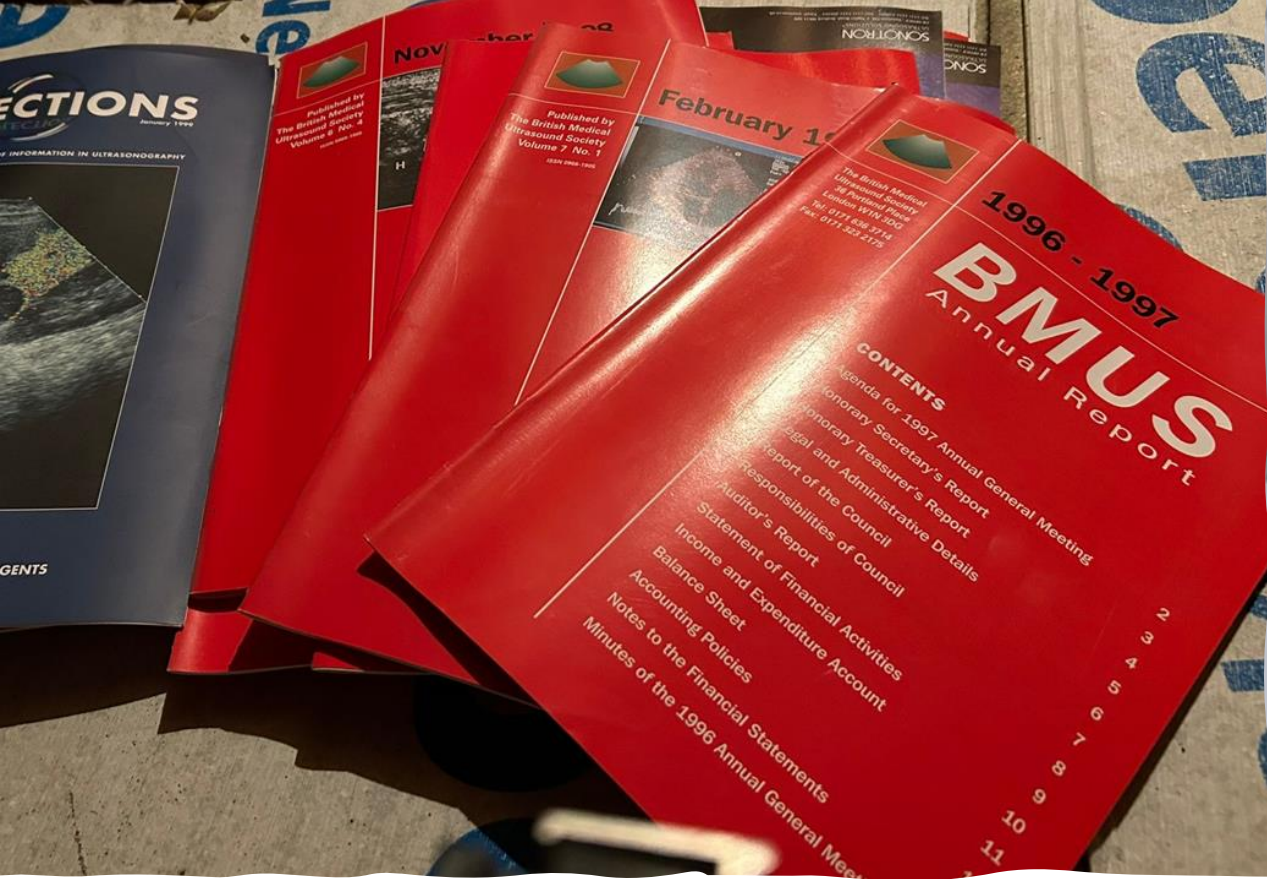
Sonographer input needed for the SoR Ultrasound Census

Help shape the future of sonographer regulation by sharing your insights in the SoR 2024 Ultrasound Census

Published: 02 December 2024

Ultrasound

<https://www.sor.org/news/ultrasound/sonographer-input-needed-for-the-sor-ultrasound-ce>



Back in the day.....

1995.....2000's

Radiology U/S

Radiologist (s)

Senior I Radiographer

Basic Grade Trainee



Bates, J. A., Conlon, R. M. & Irving, H. C. (1994) An audit of the role of the sonographer in non-obstetric ultrasound. *Clinical Radiology*, 49(9), 617-620.

The Previous Structure – AfC ~2004

Radiology U/S

Radiologist (s)

Advanced Practitioners

Practitioner / Trainee

More Senior Staff

9

Consultant Practitioners

8

Advanced Practitioners

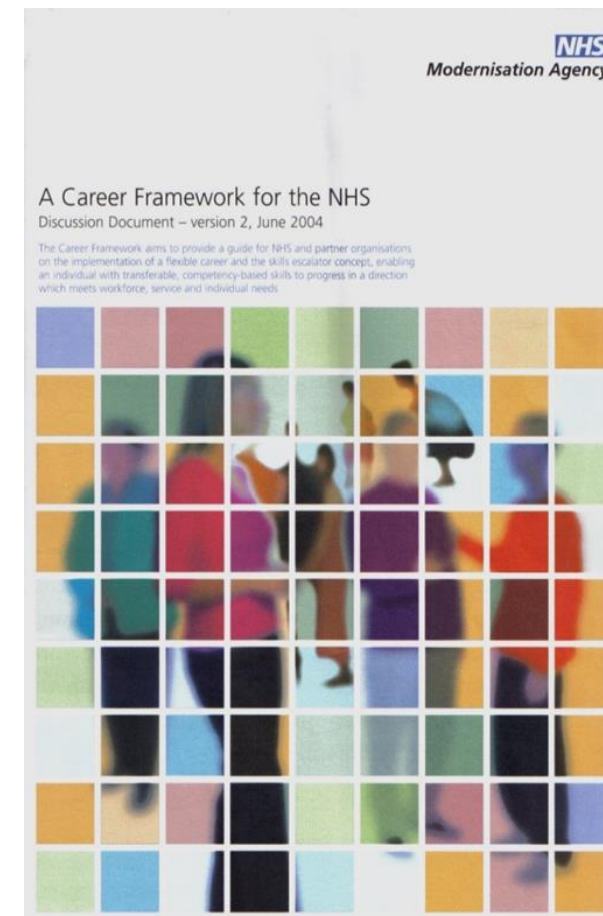
7

Senior Practitioners

6

Practitioners

5



Leslie, A., Lockyer, H. & Virjee, J. P. (2000) Who should be performing routine abdominal ultrasound? A prospective double-blind study comparing the accuracy of radiologist and radiographer. *Clinical Radiology*, 55(8), 606-609.

Sonography Profession



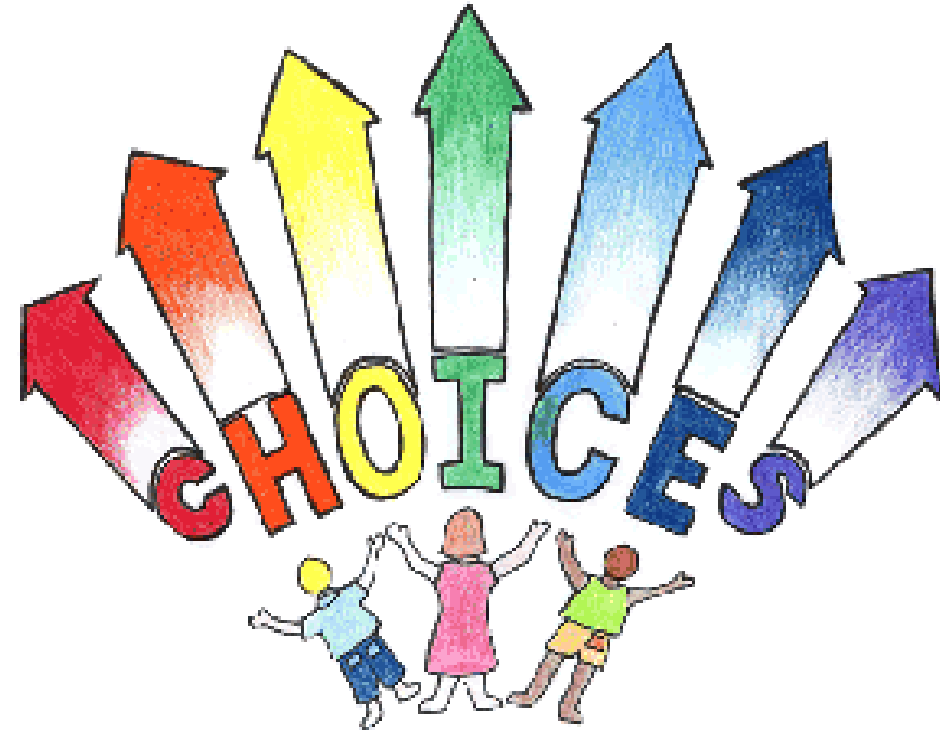
**Guidelines For
Professional
Working
Standards**

**Ultrasound
Practice**

**United Kingdom Association of Sonographers
October 2008**

Changing Landscape

- GP Fund Holding (~ 2001)
- Independent Sector Providers (~ 2010)
- Changes to NHS Careers funding (2012)
- Technology developments – 3D/4D leading too social scanning



What options are there to cope?

- Ration services?
- Out-source?
- Radiologist input?
- POCUS

- Restructure?
- Recruit?
- Train more?

WTE

IP / ACUTE
HEI x 2
CHH x 1

DVT x 1

Obs x 6

RDS x 1 + MH

PMS x 0.4

Prostate x 1

H&N x 0.6

Haematology x 0.5

13.5

Radiologist support
tower + demand.

JK

Rheum-artsaris

Hypothy - outsource

MSK

Paeds

Consultants = activity savings

Track Capacity (San Bed)
- activity
- vacancy rate
- A/L ratio

Equip ment
Housekeeper

Temp
Es A&S
replacement

Stick to obs guidelines
18BLW
EPAU

Management Assistant

local OTT agreement.

Pathology Reviewer
violet
DVT

Marfleet
=> CDC

Genae MRI
107A

?pp
swap at
Spire.

5 CATP AM
4 CATP PM
lose Wed PM

full booking appointments
b f DNA
x100 amove.

Dr B. Insaris
/ Pioneer

Weekends: ? CHH

Business Intelligence - live demand.
W/L DNA rates

Genae consultants?

Locums

MSawcins

HUTA - CSUS

U's Pioneer

Obs screenings
outsourcing.

June 2023

Train and Recruit

- Developments, including direct access to Postgraduate ultrasound and the development of Undergraduate ultrasound courses (including apprenticeships), are revolutionising the pool from which sonographers can be recruited.



Train and Recruit

- This apprenticeship is designed to teach the skills, knowledge and behaviours needed to develop clinical practice in ultrasound and diagnostic imaging.

**Sheffield
Hallam
University**
Knowledge Applied

Study

Research

Alumni

[Study](#) / [Higher and degree apprenticeships](#) / [Health and social care](#)

Sonographer

Level 6 degree apprenticeship

BSc (Hons) Medical Ultrasound

<https://www.shu.ac.uk/study-here/higher-and-degree-apprenticeships/health-and-social-care/sonographer>

Train and Recruit



UNIVERSITY OF LEEDS

Students ▾

Course Search

Home

Undergraduate courses

Masters courses

Medical Ultrasound (Sonography) BSc

Comprehensive training in both technical knowledge and professional skills, and gain an understanding of medical ultrasound's scientific, technical and professional concepts

<https://courses.leeds.ac.uk/j755/medical-ultrasound-sonography-bsc>

Train and Recruit

- Whilst these routes of education make recruitment availability broader, proficiency is still not quick to achieve; taking a minimum of 2-3 years, followed by a period of preceptorship.
- BSc Sonography is not eligible for bursary and expenses which the comparable BSc radiography students are

<https://www.bmus.org/mediacentre/news/bmus-response-to-nhs-10-year-plan/>

Entry routes

All entry routes should be CASE accredited, or equivalent, from academic level 6*

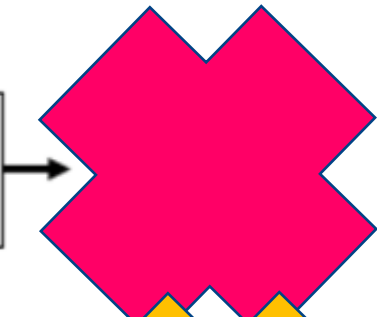
Professional title (SfH)

Career Progression

Career level

Su (*st)

Expert practitioner with experience & ideally doctoral level qualification or equivalent



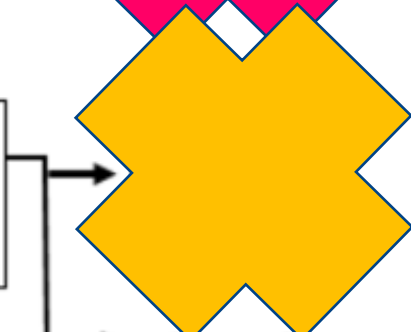
Consultant Practitioners



Progression: Master's degree. Working towards relevant doctorate or equivalent

***registration upon qualification from approved course if feasible*

Practitioner with relevant Master's level equivalent ultrasound/ sonography qualification **



Advanced Practitioners



Progression: Working to develop skills to match Advanced Clinical Practice Framework Postgraduate, M-level education

Existing post graduate routes to be maintained

Enhanced Practice Sonographer

Enhanced Practitioners



Progression: Further education and training which meets CASE academic level 7 standards or equivalent

***registration upon qualification from approved course if feasible*

Relevant BSc (Hons) in sonography / medical ultrasound **

Sonographer

Practitioners



Progression:
• Apprenticeship
• Accredited level 6 study

Relevant postgraduate certificate, diploma or master's in sonography / medical ultrasound



FASP

NHS FASP recommends that any person undertaking an ultrasound scan on pregnant women, for the purpose of screening and diagnosis of a related condition should hold, as a minimum, one of the following:

- **Certificate/Diploma in Medical Ultrasound** of the College of Radiographers (CoR) with evidence of appropriate CPD
- **Post Graduate Certificate in Medical Ultrasound** approved and validated by a Higher Institute of education and accredited by the Consortium for Sonographic Education (CASE or equivalent).
- Royal College of Obstetricians and Gynaecologists (RCOG) Royal College of Radiologists (RCR) Diploma in Obstetric Ultrasound or the Advanced Skills Training Module.





CASE Programme Equivalence

Issued April 2023

It is not within the remit of CASE to comment on ‘equivalence’ of non-CASE accredited programmes or individual practitioner’s qualifications. As ultrasound is not a registered profession in the UK, the ultimate responsibility for assessing the equivalence of an award held by any employee, and ensuring that the knowledge, skills, and competence of sonographers are appropriate for UK practice, resides with the employer. This applies to **any** sonographer with or without a CASE accredited award and regardless of the country of qualification

Non-CASE Recruitment

This guidance document aims to assist ultrasound teams and recruiters in the recruitment and preceptorship of sonographers without a CASE accredited award by referring to relevant information.

It does not replace good recruitment and selection processes currently in place locally

[Guidance Pages | BMUS](#)



Recruitment of sonographers without a CASE accredited award: Guidance for employers

Society of Radiographers and British Medical Ultrasound Society

First edition

October 2024

ISBN:

International Recruitment

**Community Diagnostic Centres
Sonographer International Recruitment
steering group**



NHS
England

International Recruitment

**Community Diagnostic Centres
Sonographer International Recruitment
steering group**



NHS
England

Sonographer international recruitment plan

The Sonographer International recruitment plan adopts the process from 23/24, takes the learning from this recruitment and the considerations put forward by members of this steering group. Skilled candidates with proficiency in scanning as per mapped equivalence to UK competencies will be appointed into funded posts with a 3-month funding provided for bridge training as well as all relocation costs.

Trusts will be asked to sign up to a permanent position with a minimum 2-year contract and 5-year visa. The core streams of work and objectives are as follows:

Objective 1: Develop and implement a conversion program for international candidates that enables registration and assures equivalence

Objective 2: Develop international attraction strategy and supply pipeline

Objective 3: Recruit up to 42 international sonographers substantively by March 2025



Sonographer international recruitment plan

Project Plan

Objective 1: This scheme aims to provide a registered, CASE accredited route for international sonographers. The scheme will engage with training academies to deliver a CASE equivalence clinical assessment and competency training program that meets the requisite standards.

Objective 2 and 3: To enable the supply an attraction strategy that profiles the candidates' qualifications and opens the international supply to the UK with a clinical sonographer validation and assessment process.

The core countries include Canada, Australia, New Zealand, South Africa and Ireland. Trusts will commit ensuring candidates are appointed into post with assurance for a 2-year contract as a minimum.

Retention



- The goal of this is to establish a work environment that encourages employee satisfaction, engagement, and loyalty,

First Post Retention

Why apply to be endorsed?

- The scheme has been designed to help departmental managers and ultrasound leads support, develop and retain their valuable workforce

<https://www.bmus.org/preceptorship-endorsement-scheme/>

BMUS 

**BMUS Preceptorship
Endorsement Scheme**

Produced by the British Medical Ultrasound Society

May 2023

Preceptorship

Suggested Scope of Practice during preceptorship programme:

- **Obstetrics:**

1st and 2nd trimester FASP screening performed independently, subject to FASP requirements and acquisition of DQASS number.

A range of obstetric examinations which includes early pregnancy and third trimester cases and lower risk multiple pregnancies.

- **Gynaecology:**

GP and hospital cases, as competencies develop

- General medical:

Abdominal and pelvic scans for GP and hospital cases, as competencies develop

- **Vascular**

DVT

Liver Doppler

Other examinations might be performed in a supervised capacity. Areas of practice could develop over time, with experience, further learning, competency 'sign-off' and with clear schemes of work in place

Radiology Department **ULTRASOUND**

Sonographer Preceptorship Package for the Newly Qualified Practitioner

Annex 21 of NHS Terms and Conditions

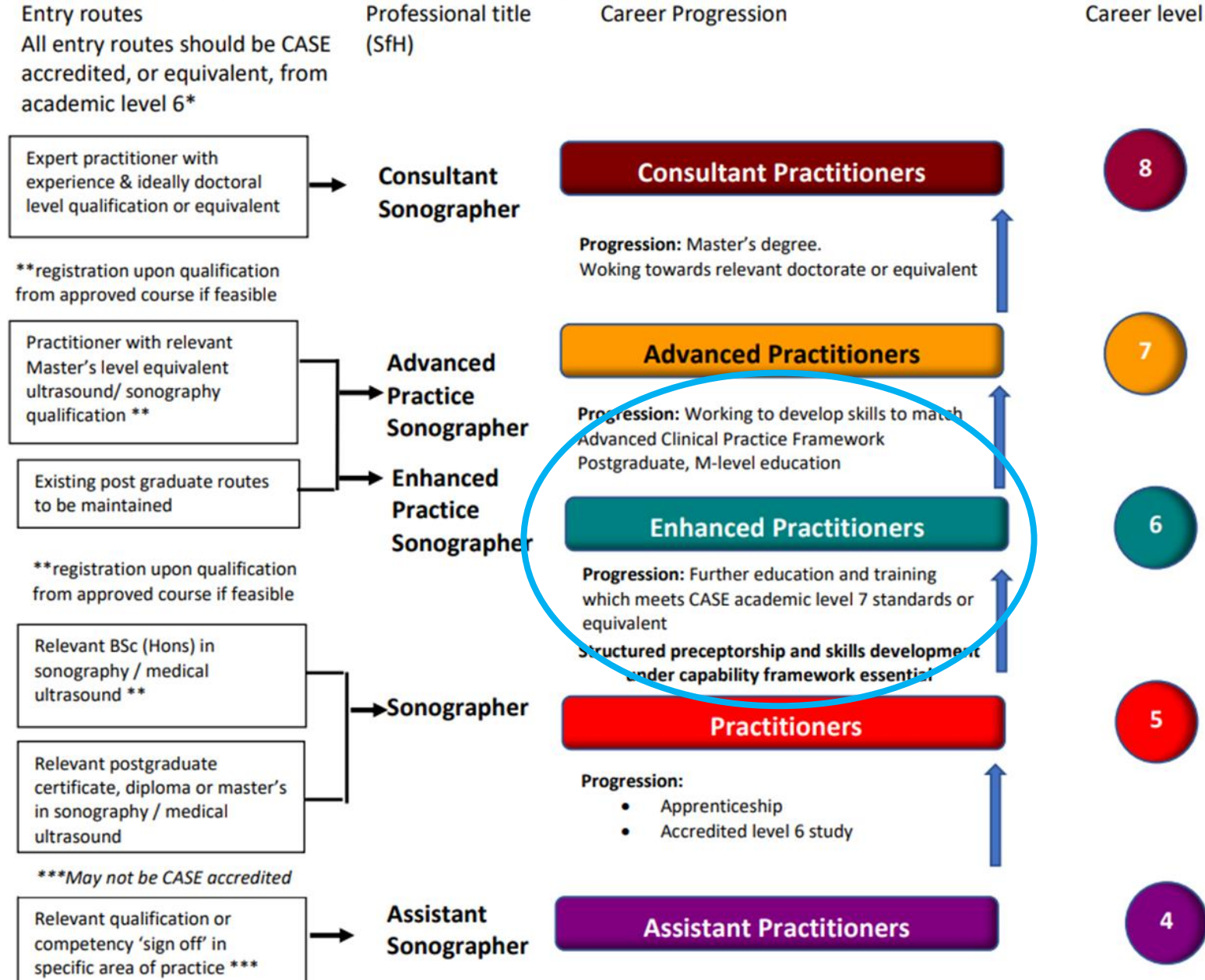
For trainees where periods of training last for between one and four years, pay will be adjusted as follows:

- up to 12 months prior to completion of training: 75 % of the pay band maximum of the fully qualified rate;
- more than one but less than two years prior to completion of training: 70 % of the pay band maximum of the qualified rate;
- more than two but less than three years prior to completion of training: 65 % of the pay band maximum for the qualified rate;

**Annex 21 - Arrangements
for pay and banding of
trainees**

Appendix A

Outline Career and Progression Framework – Final V4. Updated March 2023



Career Development

This document outlines the training and assessment criteria required for practitioners in radiology when undertaking new skills outside of their core learning and development programme.

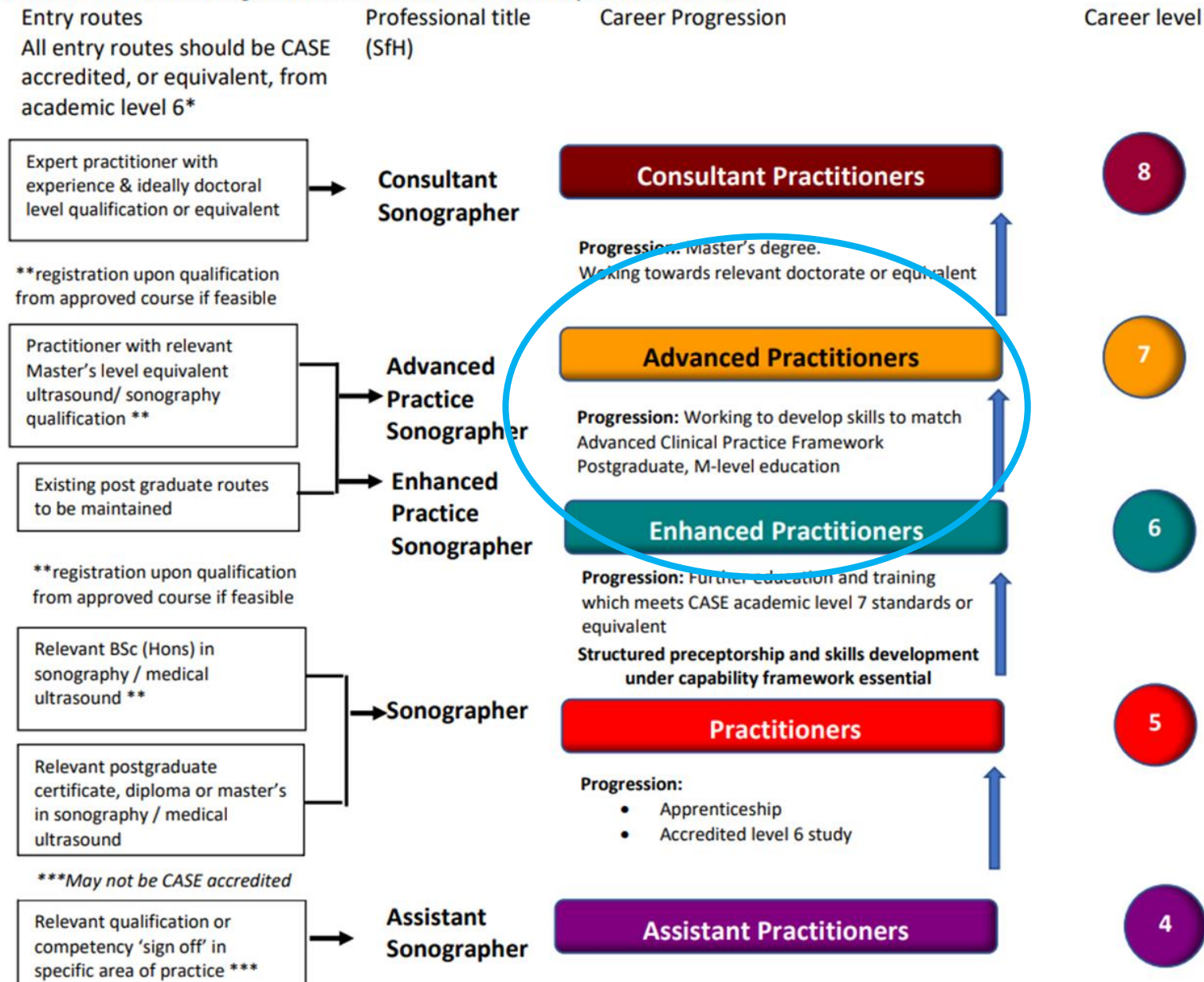
Upon completion of training, competency assessment is required and will take the form of a Clinical Competency Assessment tool - Radiology Direct Observation of Procedural Skills (Rad-DOPS).

Radiology Department **ULTRASOUND**

Training and Assessment Programme for Additional Clinical &/or Interventional Skills

Appendix A

Outline Career and Progression Framework – Final V4. Updated March 2023



Structure

Identify what structure needs to look like for your service, not just what individuals want

Ultrasound Structure

1.0 WTE Cons Sonog PP

1.8 WTE Operational manager & training coordinator LS/LA

Obs

- 0.8 WTE Ops SER
- 1.0 WTE FM/SCREENING ESy
- 0.5 GAP ESarg
- 0.6 GAP+PAS LG
- 0.4 EPAU KG

0.5 AH

- Gynae / FDS 0.5
- MSK 0.8
- RDS 1.0
- CDC 0.5
- ENT 0.5
- ESand 0.5 WTE
- 0.5 Rm PE
- 0.5 WTE KM
- 1.0 WTE Vac

TRAINING PLAN

2024/25

- 1.0 WTE OBS AU
- 0.5 WTE OBS RA
- 2.0 WTE NOUS KP/JJ

25/26

- 1.0 WTE OBS KP/JJ
- 0.5 WTE GYN/RA (SO? NOUS)
- 1.0 WTE OBS } VAC.
- 2.0 WTE NOUS }

MACHINES

- CDC 1 - FLUORO? MUS
- CDC 2 - CDC MARCH 25
- WUS → WILBERFORCE MAY 24
- MOS → WILBERFORCE JUNE 24
- CDC MARCH 25

Summary:

- 86 obs P (2024) HL
- x 2 (2025) AU
- 23 WTE Budget
- B7 17 WTE IN POST
- 6 WTE VACANT.
- (1.0 B6 over 2.0 B7 career break)
- = 3 WTE .87
- 1.0 WTE B. PE
- 0.5 WTE BR CDC.

Consultant Sonographer
1.0 WTE B8b

Head of department
1.0 WTE B8a

Management assistant
1.0 WTE B4

Equipment and data
management
1.0 WTE B4

CS MSK
1.0 WTE B8a

CS elective lead
1.0 WTE B8a

CS H&N
0.5 WTE B8a

CS RDS
1.0 WTE

CS Acute lead
1.0 WTE B8a

CS Elective gynae &
gynae oncology
1.0 WTE B8a

CS Paediatrics
0.5 WTE B8a

Totals:
1.0 WTE B8b
9.5.0 WTE B8a
2.0 WTE B4
17 WTE B7
2.0 WTE B6
3.0 WTE B5

Training and staff
development

Undergrad, Postgrad,
reg, regional relations
1.5 WTE

Preceptorship and
staff development
1.5 WTE

Funding

Business plan included review of cost per session for sonographers, radiologists, and other clinicians in team.

Review examinations / tariffs / contracts



Engagement



Engage with HR, finance, clinical director, care group managers



SWOT analysis of structure undertaken including pro's of role extension for patient pathways





Implemented pathways

- Rapid diagnostic service
- Prostate cancer pathway

Pathway 1 : Non-Site Specific Symptom Pathway



Non-specific symptoms pathways are for patients who do not fit into a single 'urgent cancer' referral pathway, but who are at risk of cancer.



'Non-specific' symptoms include unexplained weight loss, fatigue, abdominal pain or nausea; and/or a GP 'gut feeling' about cancer.



Purpose is to achieve earlier and faster cancer diagnosis

RDS - NSS / Vague symptoms

Low
suspicion

• CXR & USS

High
suspicion

• CT TAP

Imaging, PMH, presentation scenario, & core filter tests reviewed by sonographer / radiologist.

Outcome added

Onward referral / advice to GP

Outcomes

| Outcome | Action for referrer |
|----------------|---|
| 1 | Suspected/confirmed cancer |
| 2 | Significant non-cancerous finding |
| 3 | Discrepant findings / incomplete investigations |
| 4 | NAD – discharge with safety netting |

RDS Outcomes

Ultrasound and CXR performed by sonographers

```
graph TD; A[Ultrasound and CXR performed by sonographers] --> B[CXR reported by radiographer (48 hrs)]; B --> C[Ultrasound reported by sonographer]; C --> D[Both reviewed and outcome added by sonographer]; D --> E[CT TAP Reported and outcome by radiologist];
```

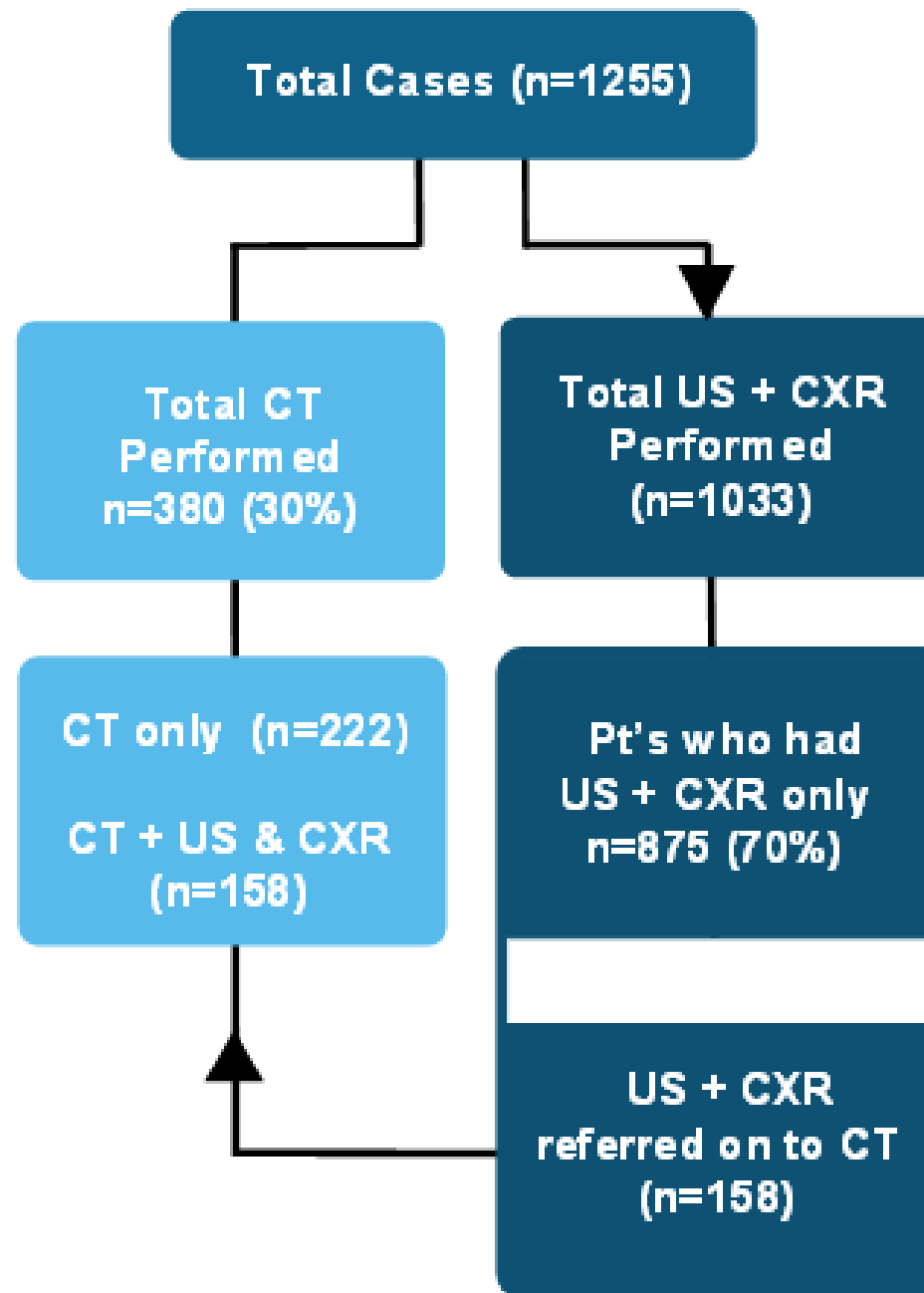
CXR reported by radiographer (48 hrs)

Ultrasound reported by sonographer

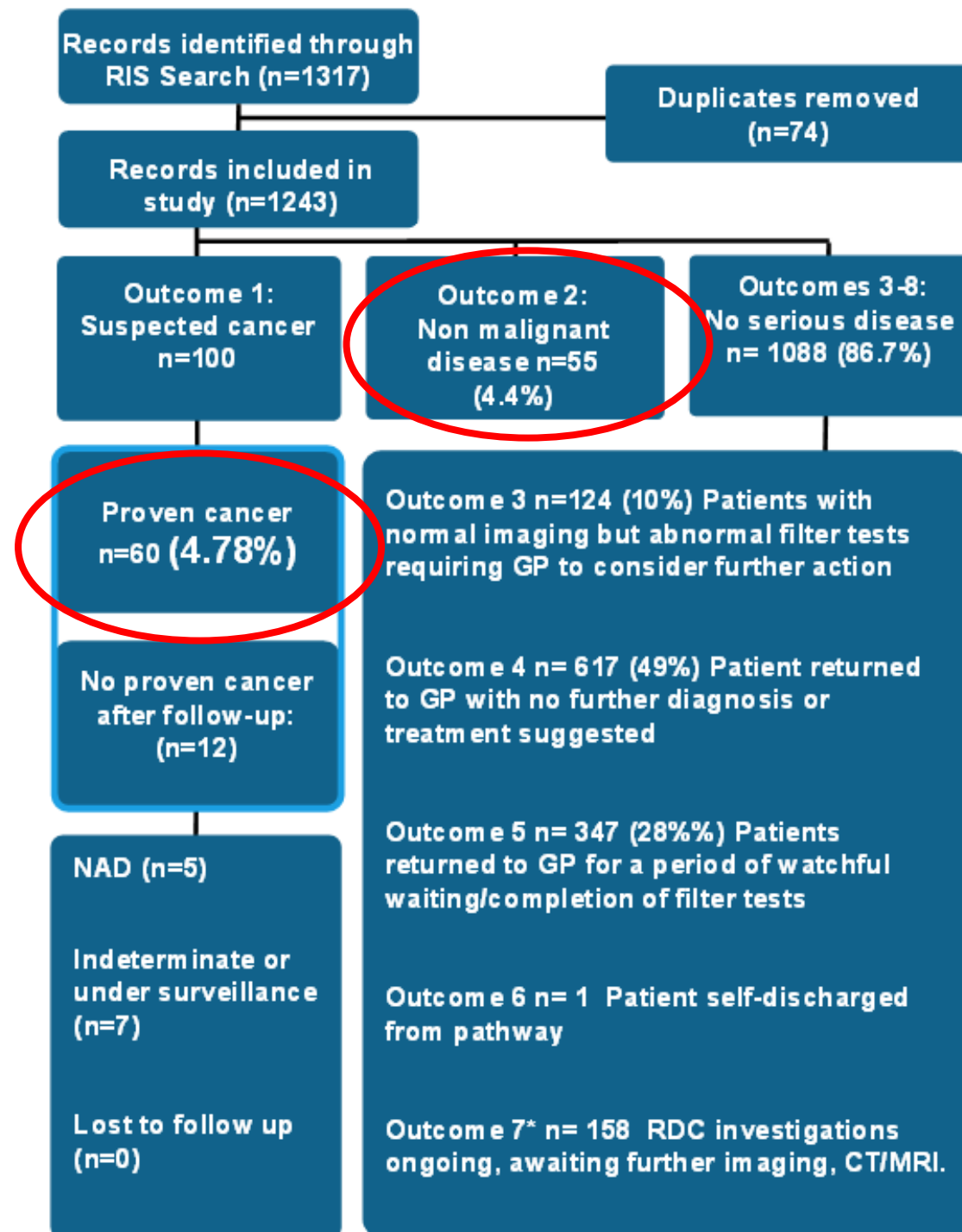
Both reviewed and outcome added by sonographer

CT TAP Reported and outcome by radiologist

HUTH RDS Service



RDS Outcomes



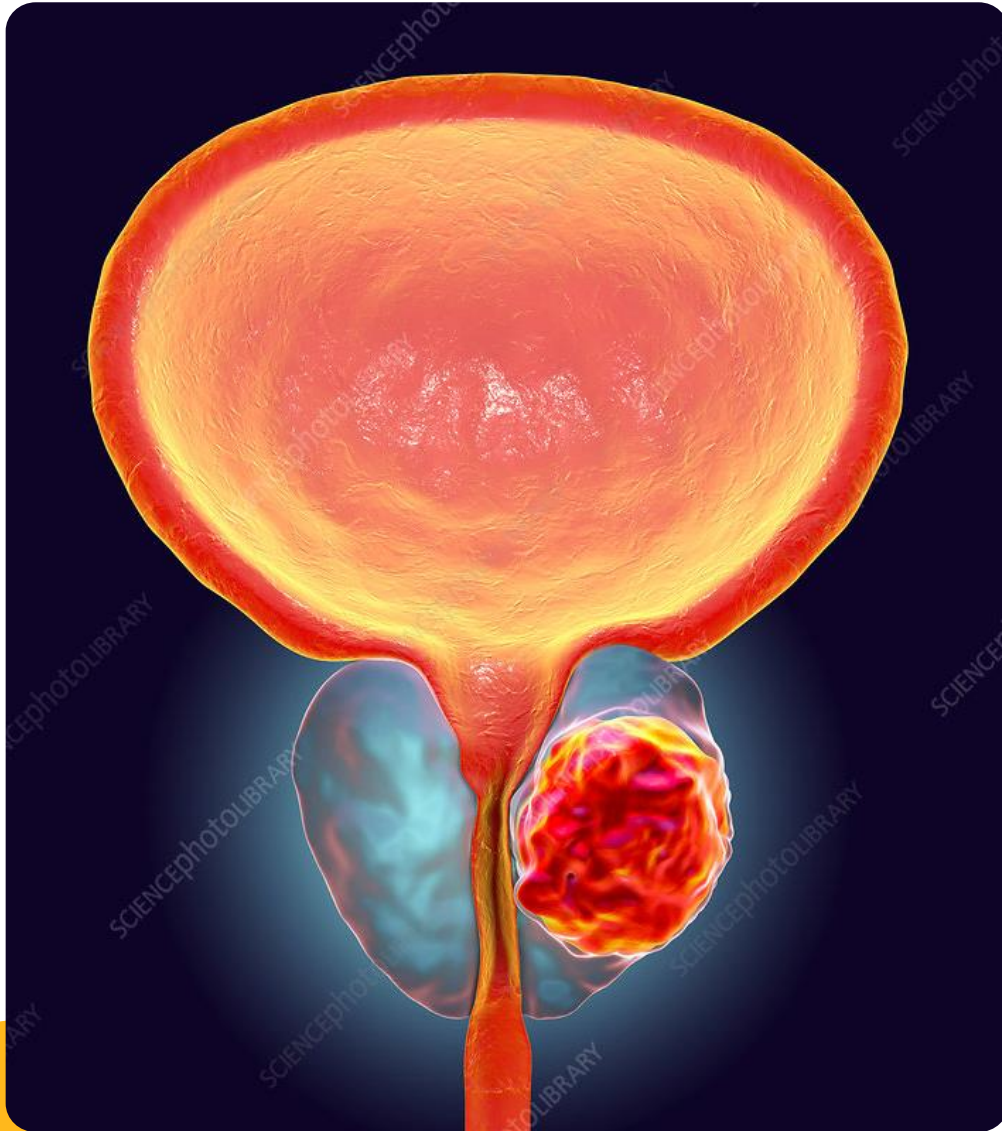


Improved Pathway

HUTH RDS performance Sept 23 – Sept 24:

Diagnosis or cancer ruled out within 28 days of referral

96.8% (75%) either reassured or given a diagnosis within 28 days



Pathway 2: Prostate Cancer

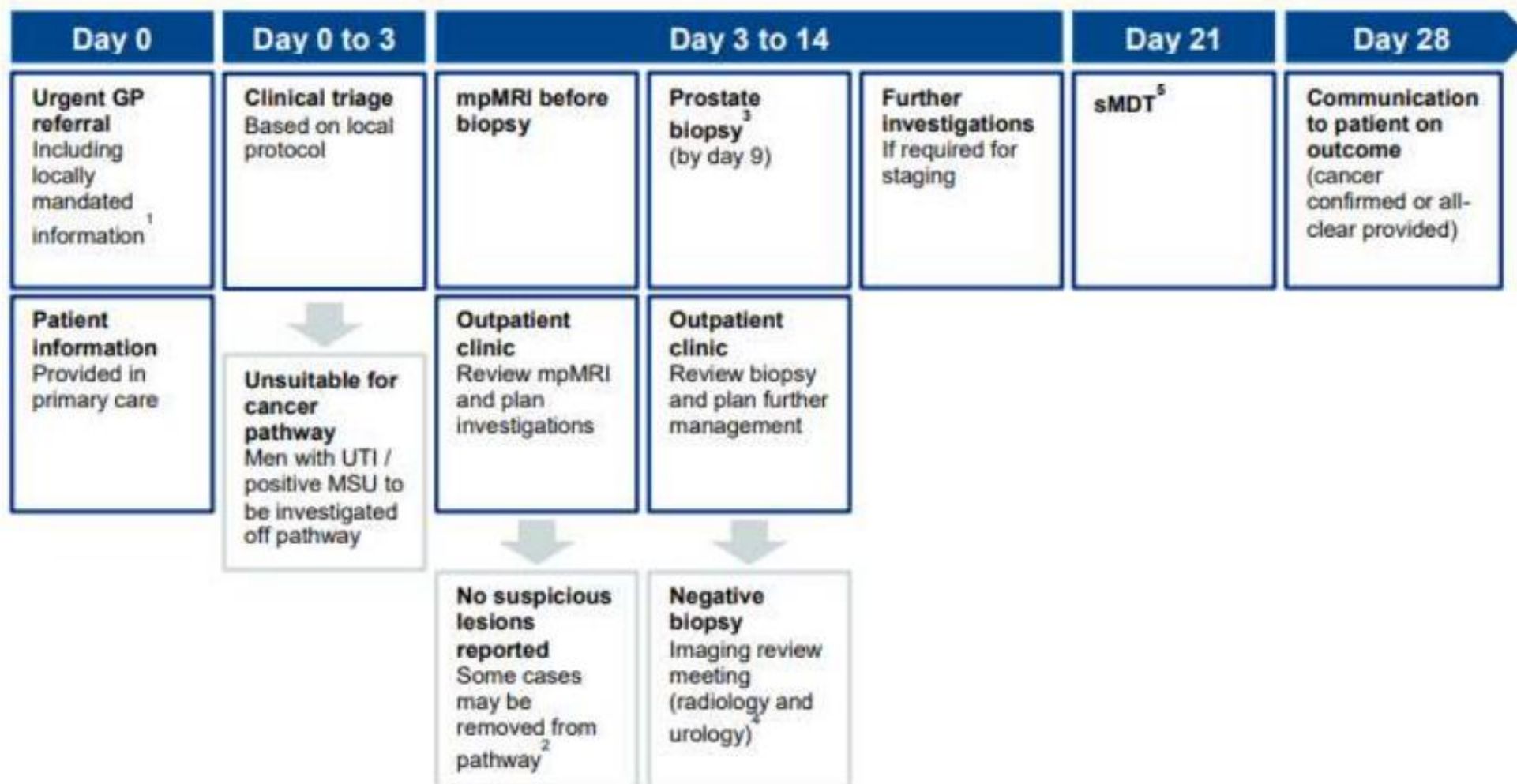
1 : 8 men

1 : 4 black men

52,000 new case per annum

78% men survive prostate
cancer for 10 years or more

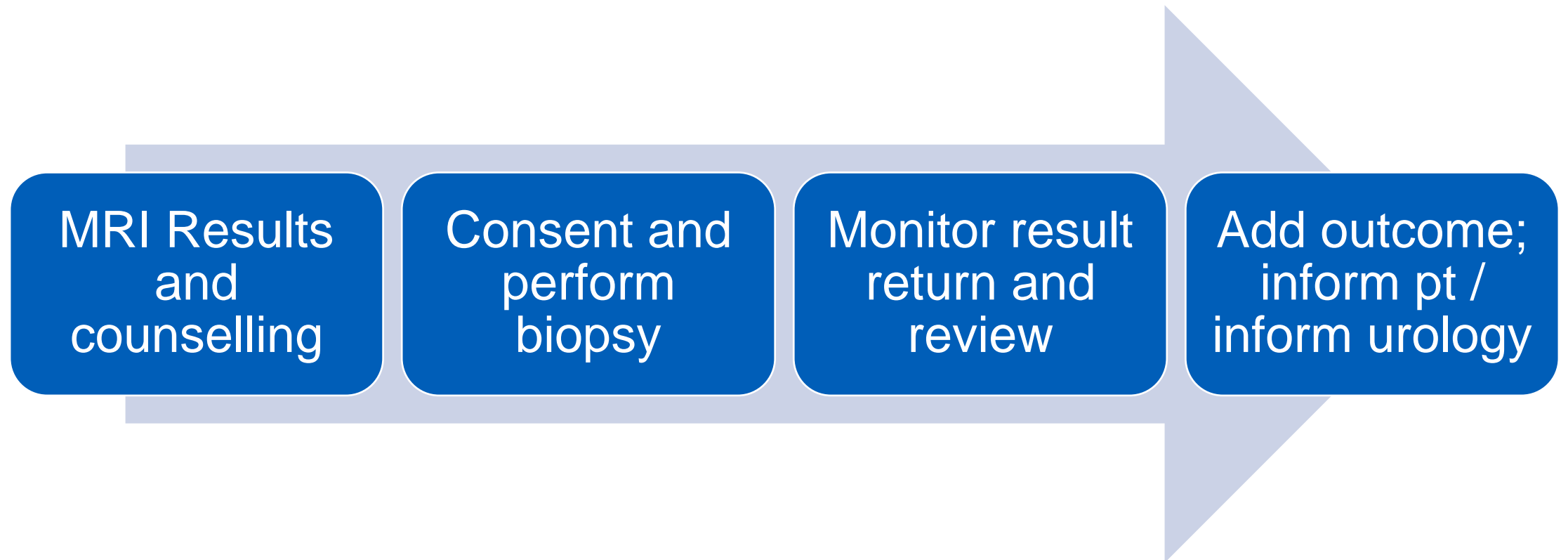
28 day pathway



Maximum target times provided

This is a straight to test pathway using mpMRI. The 21 day pathway should be used when an immediate MRI is not required or is contraindicated.

Sonographer role in PCa pathway



Prostate Outcomes

| Outcome Code | Description | Histology | Action |
|--------------------|--|--|---|
| RPP1 Outcome1 | Prostate Cancer | Gleason 3+3 and above | MDT discussion or clinical review |
| RPP 2 Outcome 2 | Clinically significant Benign disease | High Grade PIN, ASAP | Not for MDT but follow up in urology. Sonographer contacts patient with results. Contact recorded and 2ww clock stopped |
| RPP 3 Outcome 3 | Disparity between MRI and biopsy. ie PIRADS 4 and 5 on MRI | High Grade PIN, ASAP or benign disease | MDT Discussion required |
| RPP 4 Outcome 4 | Clinically insignificant Benign disease. (Includes low grade PIN, acute inflammation and prostatitis) | | Not for MDT. Sonographer contacts patient with results. Contact recorded and 2ww clock stopped. |

28-Day timed pathway

- Average wait from referral to clinic = 7 days
- Average wait to MRI = 3 days.
- Average wait to MRI to biopsy = 6 days
- Average wait from biopsy to outcome = 14 days

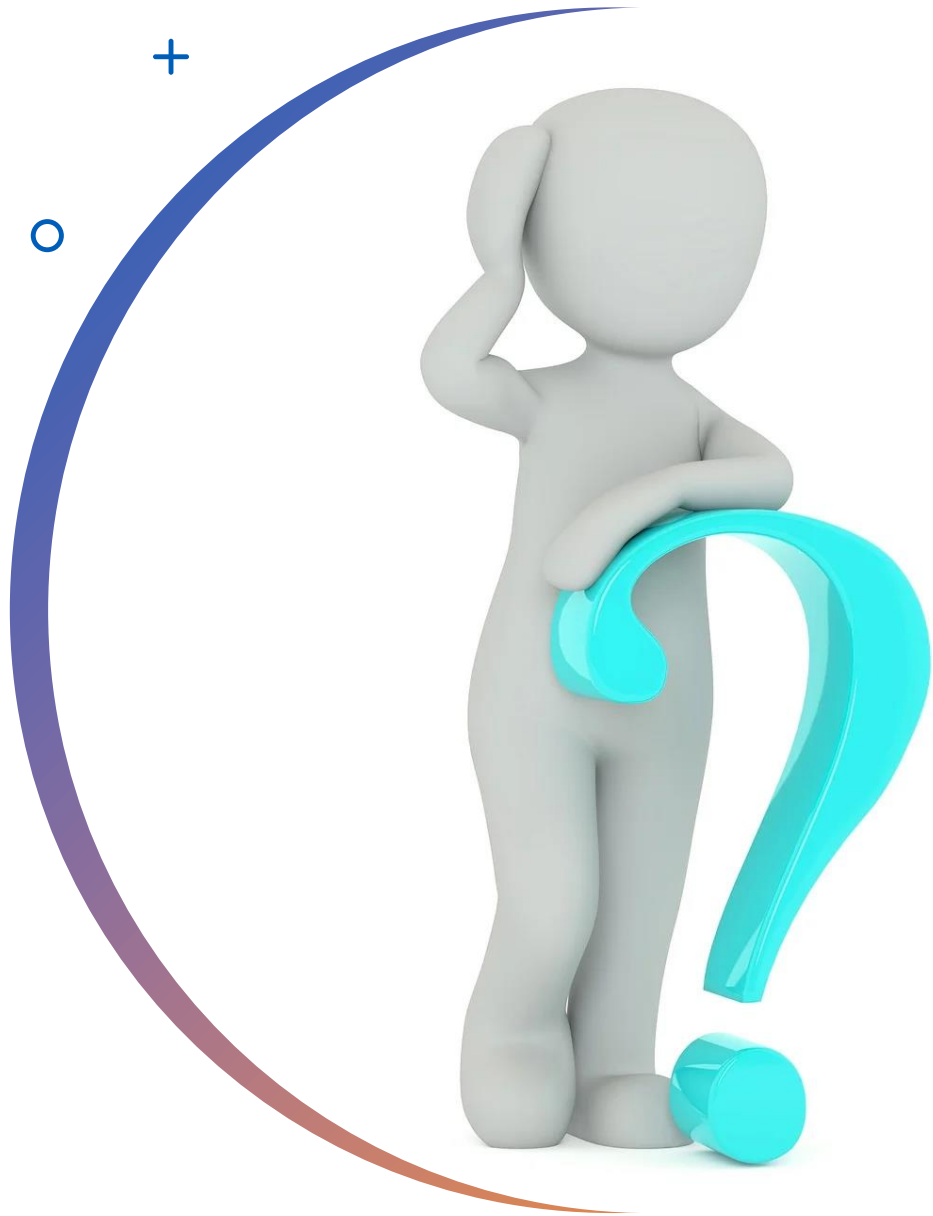
- Average wait for whole pathway = 30 days

28 day pathway



Maximum target times provided

This is a straight to test pathway using mpMRI. The 21 day pathway should be used when an immediate MRI is not required or is contraindicated.

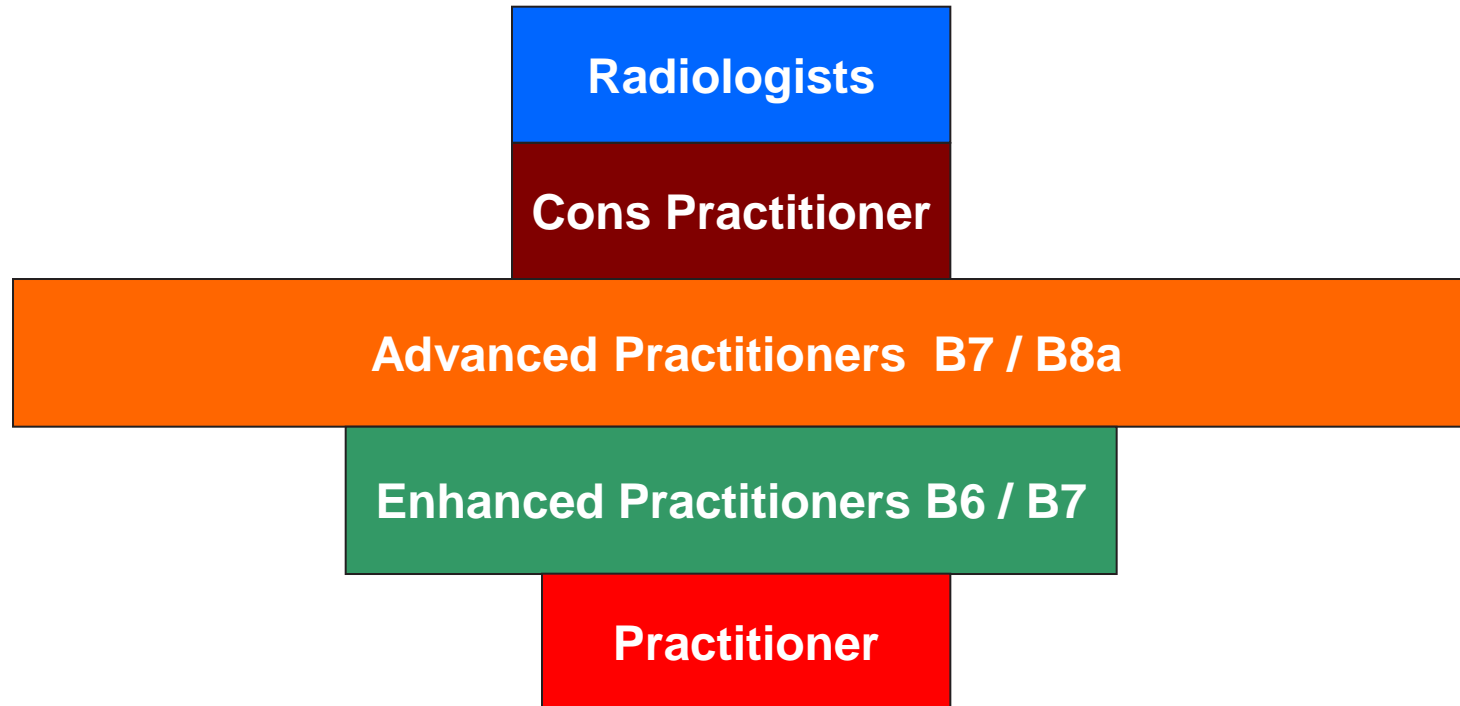


Why?

- Performance
- Job satisfaction
- Fulfilment of the 4-pillars of advanced / consultant practice

- **Why not?**

Transforming the Career Structure



Summary



Transforming the workforce has a positive impact on patient pathways



Improves recruitment and retention



Increased job satisfaction & team moral



Everyone is a winner!

There is no I in TEAM!

Thanks for your attention

Any questions?

