GIG CYMRU NHS WALES | Cyd-bwyllgor Comisiynu Joint Commissioning Committee

Item 3.3.3
Appendix 2

Cardiac Surgery and Cardiovascular Services Review

South Wales — Joint Committee

The evidence for a formal review of adult cardiac surgery configuration

No decision on service configuration is sought through this presentation.

Dr Joseph Riddell, Associate Medical Director | Susan Kedward, Head of Commissioning

Executive Summary

"Today, we are asking the Committee to agree with commissioners and the professional societies that the evidence means the current arrangements cannot continue without a formal, independently assured review. That review must take full account of the clinical and service interdependencies and determine which future model will deliver the best outcomes, equity of access and long-term sustainability for the population of Wales."

- Wales enters the review with lower female healthy life expectancy and higher age-standardised bad or very bad health than England. Both South Wales cardiac surgery units are among the smallest in England and Wales, and compliance with aortovascular subspecialisation and network requirements is not yet evidenced.
- Workforce age, succession, recruitment and training raise a material sustainability question; provider datasets still require reconciliation.
- Cardiac surgery depends on TAVI, structural intervention, imaging, anaesthesia, perfusion and critical care; these services cannot be assessed in isolation.
- Established English pathways support selected complex aortic, shock/mechanical circulatory and transplant-related care. The review must test what should be provided in Wales and what should remain formally networked cross-border.

Phase 1 — Complete (Jan 2023 – Jan 2024)	Phase 2 — Under Way: This Presentation
WHSSC Cardiac Review initiated Jan 2023. Phase 1 re-baselined cardiac surgery and TAVI contracts and confirmed the TAVI commissioning policy remained appropriate. Concluded Jan 2024 with revised contract baselines agreed.	Collaborative Phase 2 approach agreed by both Health Boards, Mar 2024. Service specification (SS205) published Jul 2025; provider self-assessments and evidence returns received 2026. Professional body responses have been received and incorporated into the revised Clinical Case for Change — this presentation opens the evidence-gated pathway to a future options appraisal.

So What?

The evidence justifies a formal, independently assured review. It does not determine what replaces the current model — that is for the options appraisal, once the evidence gates below have closed.

No decision on service configuration is sought through this presentation.

Why Review Now

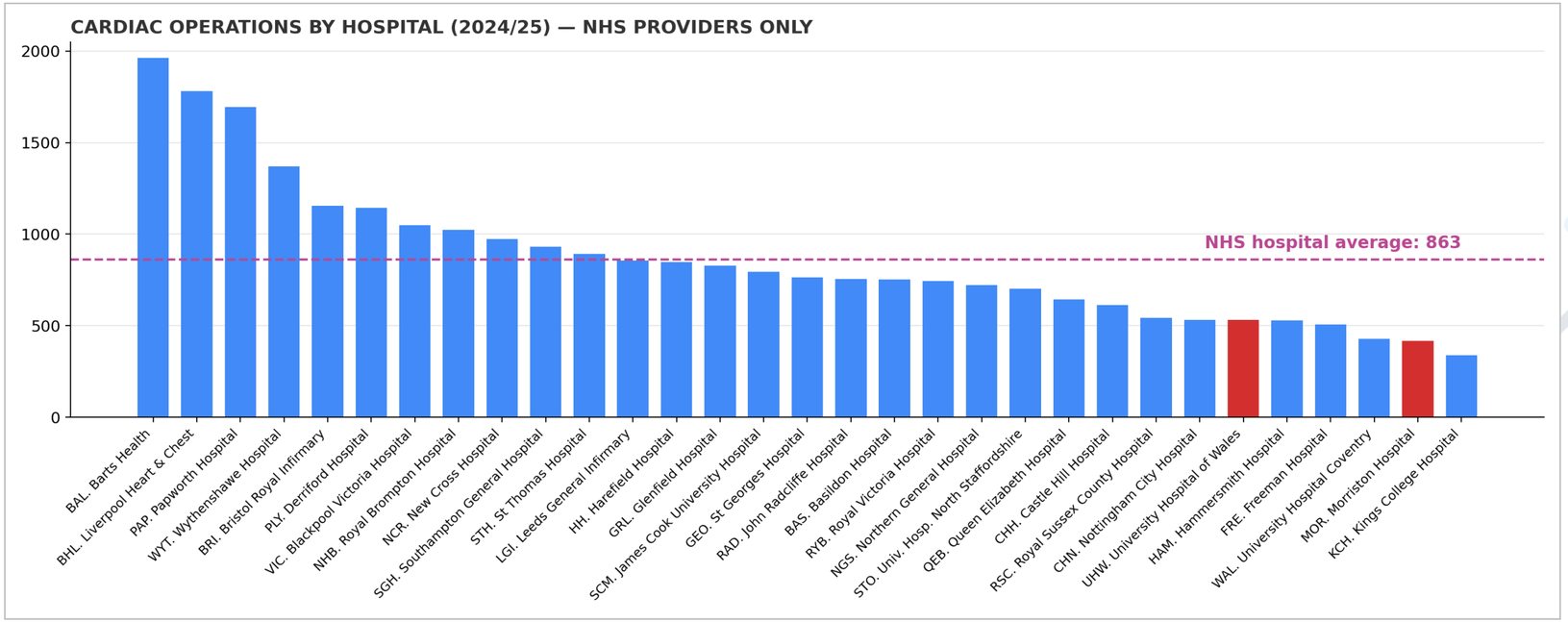
Period	Event
Jun 2021	GIRFT independent deep-dive review of both South Wales cardiac surgery units (Richens & Knight). Both units placed in commissioner escalation.
Jan 2023	WHSSC Cardiac Review formally initiated by the Joint Committee, following concerns about the form and scale of cardiac surgery and TAVI provision in South Wales.
2021–2024	Both units engage with GIRFT recommendations and demonstrate improvement. Swansea Bay exits formal escalation (May 2024); Cardiff and Vale remains in commissioner escalation.
Jan 2024	Phase 1 outcomes reported to the Joint Committee: revised contract baselines agreed, TAVI commissioning policy reviewed, and further demand-and-capacity work recommended.
Jul 2024	NHS England Cardiac Surgery Service Specification updated: new subspecialisation requirements for low-volume, high-complexity procedures and formal network arrangements.
Jul 2025	NWJCC Service Specification (SS205) published: designated aortovascular/mitral teams, 100% NACSA data-completeness standards, participation in a networked model of care.
2025–2026	HEIW SBARs and the Medical Deanery ECQC report document training-sustainability concerns — low operative exposure, developmental ARCP outcomes, no ST1 recruitment for Aug 2025 or Aug 2026 — while also recording improved trainer capacity at Swansea and continuing concern at Cardiff.
31 Jul 2026	Cardiff provider evidence return received: workforce, perfusion, training, data-completeness, escalation and cancellation evidence — recording both improvement and remaining assurance gaps.
10 Aug 2026	Swansea provider evidence return received: workforce, training, perfusion, data-submission and cancellation information, with four JCST reports.

Full chronology per Clinical Case for Change Final Draft, Section 2 (pages 7–8). Cardiff and Vale's subsequent Level 2 escalation is managed separately through the established Risk and Assurance forum and does not gate this wider review. Sources: Clinical Case for Change Final Draft, Section 2; JCC Report Version 11.

So What?

Five years after GIRFT, provider assurance gaps remain unresolved.

Where Wales Ranks Nationally — Small-Volume, Divided Units



- Chart shows the 31 NHS providers only (6 private hospitals excluded — Nuffield St Bartholomew's, Spire Nottingham, Spire St Anthony's, Spire Bristol, Cleveland Clinic London, Spire Southampton).
- Morriston (red): 2nd smallest of 31 NHS providers (~420 cases, 2024/25). UHW Cardiff (red): 6th smallest of 31 (~530 cases). NHS hospital average: 863.
- South Wales's commissioned cardiac surgery population is approximately 2.4 million; NHS England's specification describes a typical single-provider population of 1–3 million — context for the review, not a predetermined answer.

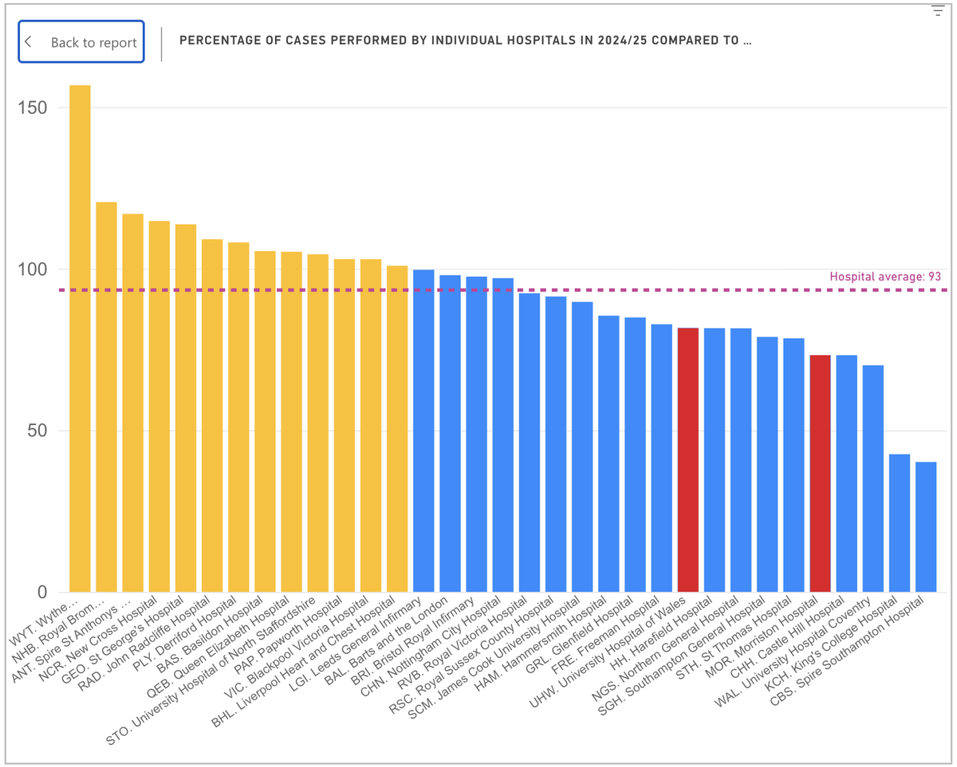
Source: NICOR National Adult Cardiac Surgery Audit (NACSA), interactive report, 2024/25, NHS providers only. Wales's two units highlighted in red.

So What?

Both Welsh units sit among the smallest NHS cardiac surgery centres in England and Wales.

This raises a material question about whether activity at each site is sufficient to sustain specialist teams, training and resilience.

Recovery to Pre-Pandemic Activity by Hospital — NICOR



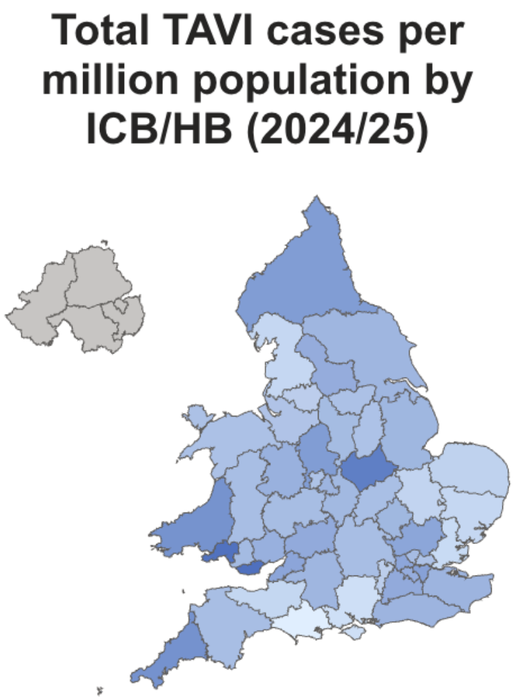
- Each bar shows a hospital's 2024/25 caseload as a percentage of its own pre-pandemic (2019/20) level. Gold = at or above pre-pandemic levels; blue = still below. Average across all hospitals: 93%.
- UHW Cardiff (red): ~82% of pre-pandemic activity. Morriston (red): ~73% of pre-pandemic activity. Both below the 93% national average and below full recovery.

Source: NICOR National Adult Cardiac Surgery Audit (NACSA), interactive report, 2024/25. Wales's two units highlighted in red.

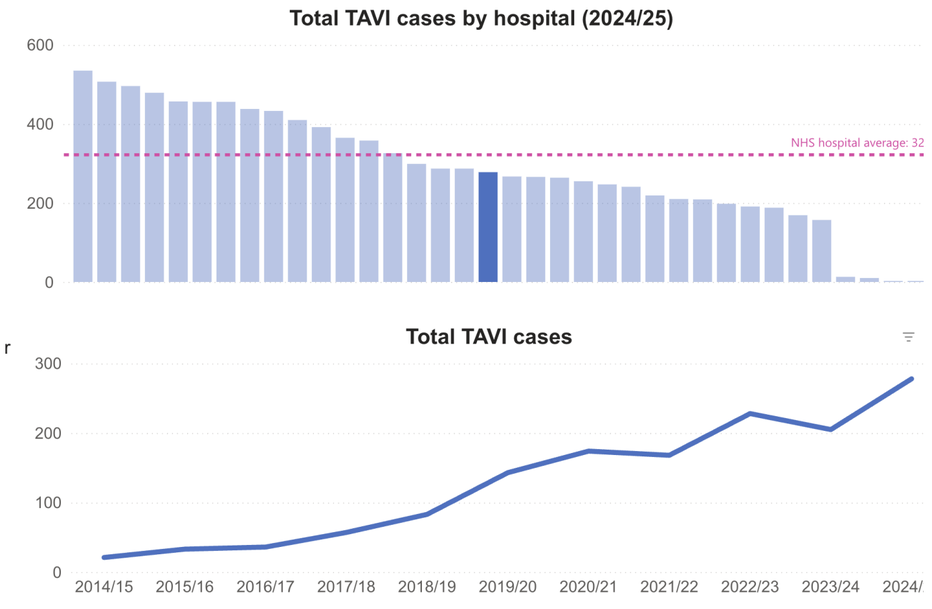
So What?

Both units remain below their own 2019/20 surgical activity and the national recovery average.

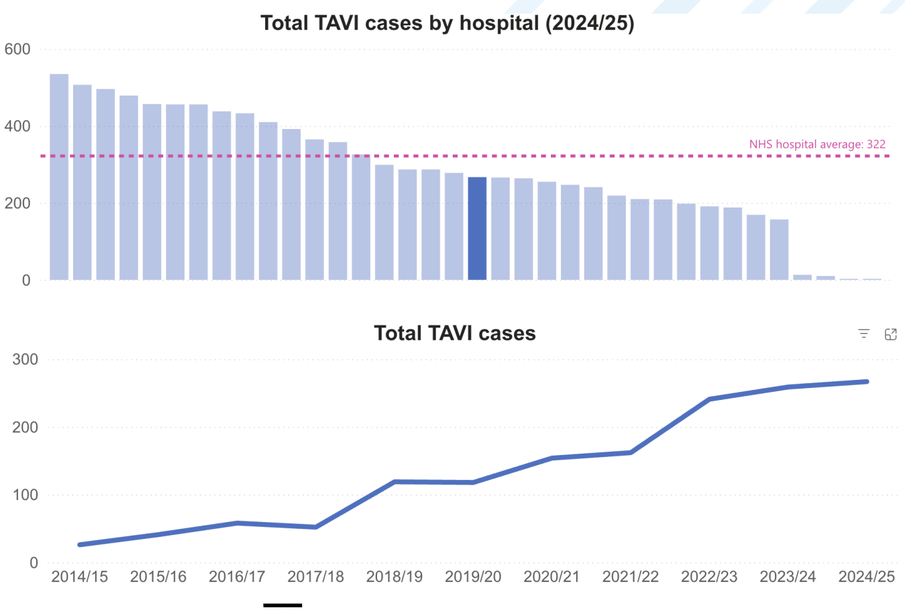
National Context: TAVI Activity Has Grown, but Equitable Access Is Unproven



UHW TAVI Cases - NICOR 24/25



Morriston TAVI Cases - NICOR 24/25



- Recorded resident-based TAVI rates are comparatively high in Wales, although smaller Health Board populations make annual rates more sensitive to modest changes in activity. For example, Swansea Bay serves around 0.4 million people, compared with up to 3.1 million in an English ICB.
- Activity has increased substantially at both UHW and Morriston, although each programme remains below the national hospital average in absolute volume.

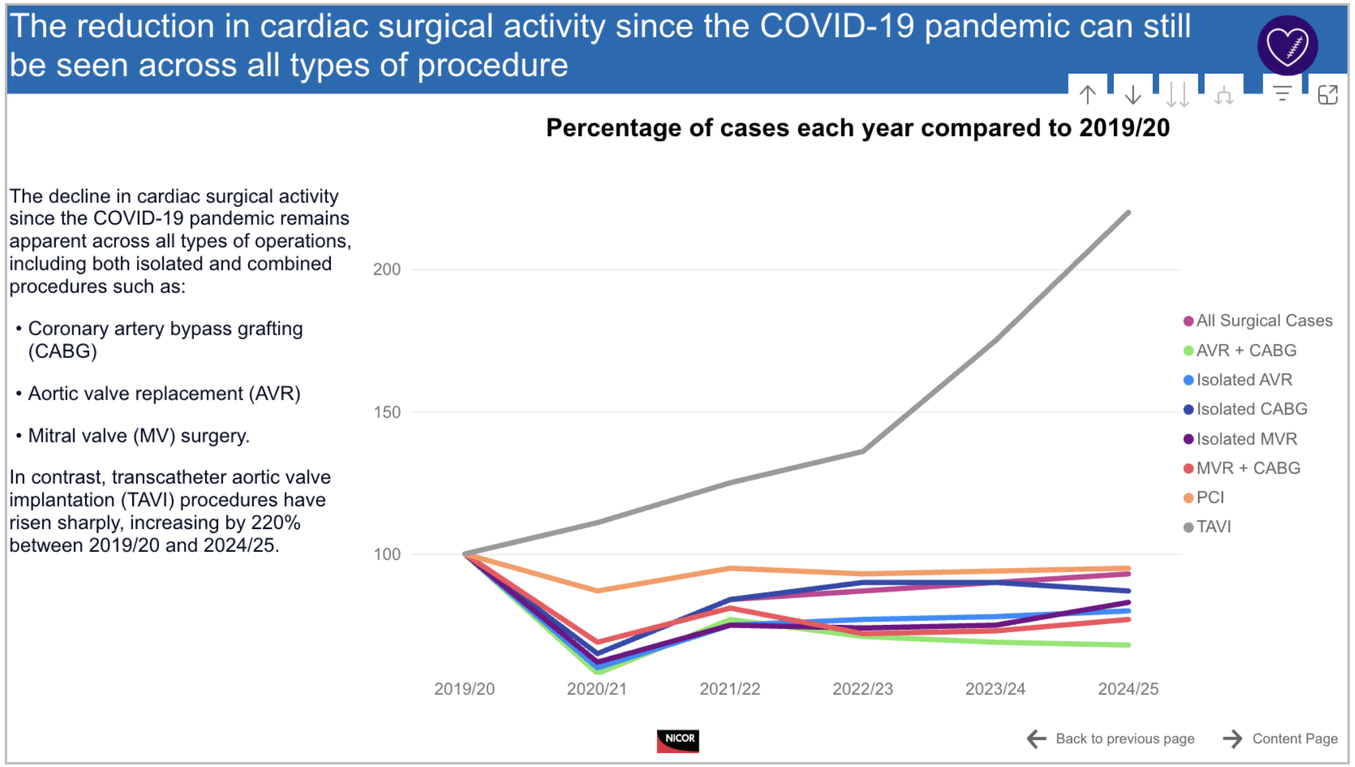
Source: NICOR National Cardiac Audit Programme, published national trend data.

So What?

Smaller Health Board populations make Welsh TAVI rates more variable. Activity data alone do not demonstrate equitable access.

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National Context: Recovery and the Shift to TAVI



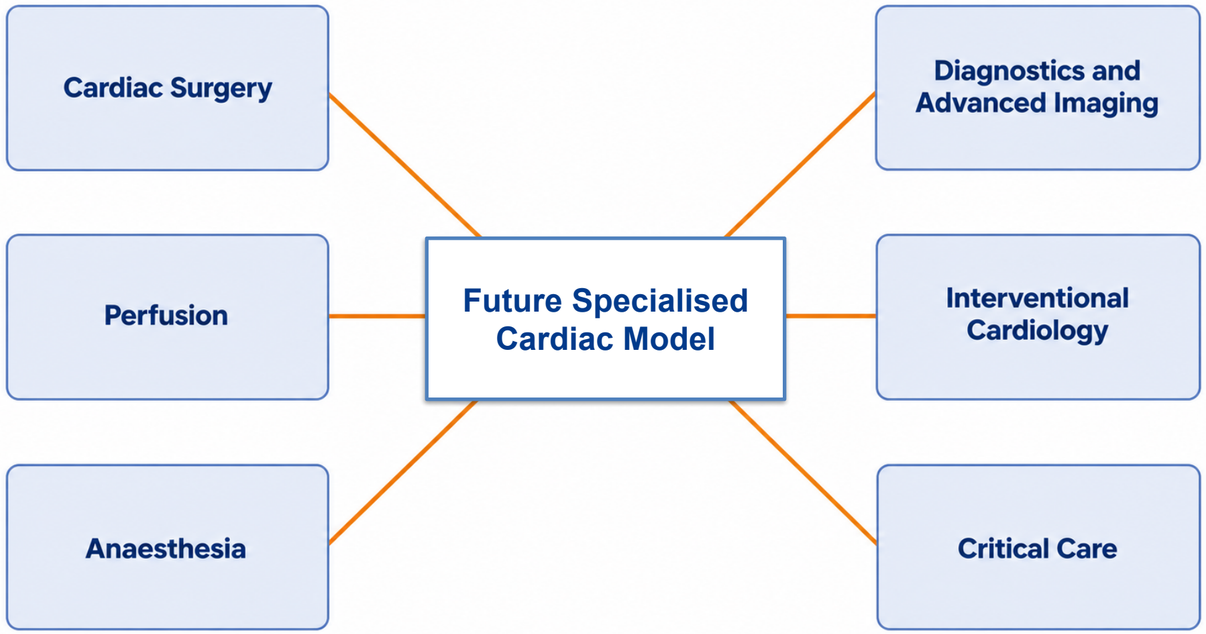
- UK-wide, not Wales-specific: surgical case volumes (CABG, AVR, MVR) remain below 2019/20 pre-pandemic levels even in 2024/25.
- TAVI activity has risen 220% over the same period — the centre of gravity in cardiac care is shifting toward transcatheter treatment.

Source: NICOR National Cardiac Audit Programme, published national trend data.

So What?

The British Cardiovascular Intervention Society (BCIS) has confirmed that TAVI should be co-located with cardiac surgery. The next slide outlines the broader clinical interdependencies that must inform any future service model.

Clinical Interdependencies Around Cardiac Surgery



Service	Assessment
TAVI	Core in-scope service
Transcatheter mitral/tricuspid	Critical interdependency
Cardiogenic shock programme	Critical interdependency
High-risk / complex PCI, incl. CTO PCI	Material network dependency
Advanced echocardiography (TOE)	Critical interdependency
Cardiac CT	Critical interdependency
Adult Congenital Heart Disease	Recommended — Wales-specific
Advanced heart failure / MCS	Material network dependency
Pulmonary hypertension & PTE	Relevant network dependency
Surgical, Medical & Perfusion training	Essential appraisal domain
Blood-product stock & supply-chain resilience	Essential appraisal domain
Coagulation monitoring & patient blood management	Essential appraisal domain

Full 12-item Clinical Interdependencies list per Clinical Case for Change Final Draft, Section 9 (pages 24-28) and ACTACC/CICM peer-review responses (Sept 2026), verbatim assessment tiers. Site-neutral: applies regardless of which site(s) host services under any future model. Sources: GPICS V3; BCIS TAVI and Mitral TEER Position Statements 2025; ESC/EACTS 2025 VHD Guidelines (Table 5) and 2018 Revascularization Guidelines; NHS England ACHD standards; ESC/ERS PH Guidelines 2022; HEIW SBARs; ACTACC and CICM responses to the Clinical Case for Change Final Draft, September 2026.

So What?

Cardiac surgery cannot be assessed in isolation. The review must distinguish services that require on-site co-location from those that can be delivered through formal, resilient clinical networks.

Professional Assurance: The Status Quo Cannot Continue Without Formal Review

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Society		Role	Status
Society for Cardiothoracic Surgery in Great Britain and Ireland	Society of Cardiothoracic Surgeons (SCTS)	Surgical standards	Response received and considered within the revised Clinical Case for Change
Association of Cardiothoracic Anaesthesia and Critical Care	Association of Cardiothoracic Anaesthesia and Critical Care (ACTACC)	Anaesthesia & critical care standards	Response received and considered within the revised Clinical Case for Change
BCIS British Cardiovascular Intervention Society	British Cardiovascular Intervention Society (BCIS)	Interventional cardiology standards	Response received and considered within the revised Clinical Case for Change
The College of Intensive Care Medicine	College of Intensive Care Medicine (CICM)	Critical care standards	Response received and considered within the revised Clinical Case for Change
	Society of Clinical Perfusion Scientists (SCPS)	Perfusion standards	Response received and considered within the revised Clinical Case for Change

So What?

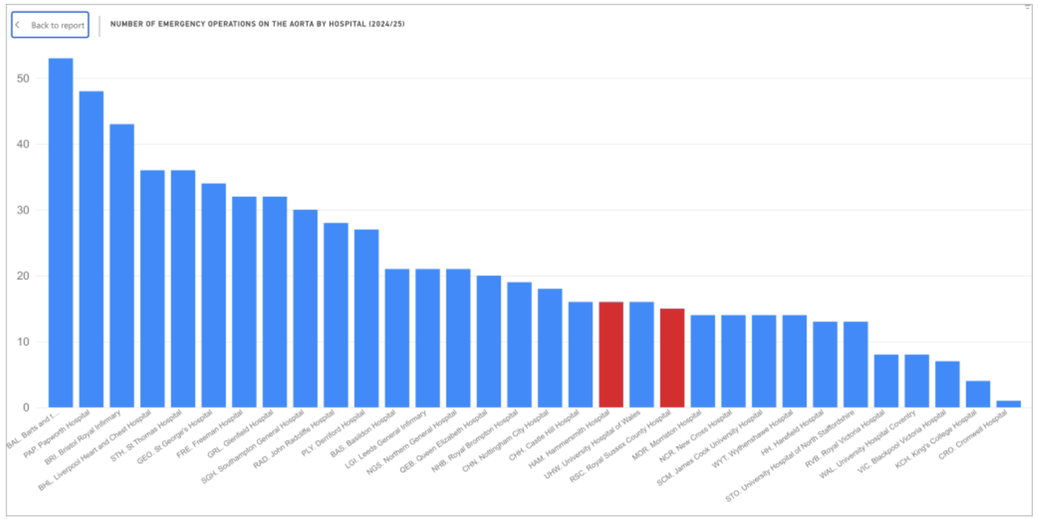
Five professional body responses have been received and considered within the revised Clinical Case for Change. The responses support progression to a formal review and have strengthened the evidence and assurance requirements for the next phase of the review. These responses support the review process and do not endorse any particular future service configuration.

Status as reported to the commissioning team; formal responses to be logged per Clinical Case for Change Final Draft, Section 20.6. Evidence graded per CCF classification: Level A verified documentary evidence; Level B verifiable pending confirmation; Level C stakeholder-reported pending validation; Level D commissioner interpretation. ACTACC and BCIS responses received 1 September 2026; CICM response received 3 September 2026.

Current Performance and Assurance Against Cardiac Surgery Standards

Metric	UHW Cardiff	Morriston	Standard / signal
Elective CABG wait	175 days	77 days* 143 days in Q2 NICOR 25/26 interim	84-day standard
Urgent CABG wait	17 days (9% within 7 days)	10 days (26% within 7 days)	7-day target
Day-of-surgery admission	0.40%	0.79%	50% target
Emergency thoracic aortic ops/yr	16	14	24+ signal (met by only 11 hospitals UK-wide, 2024/25)

- *Morriston's elective figure has only 52% waiting-time data completeness and is not a reliable comparison .



Source: NICOR NACSA hospital-level report, 2024/25; GIRFT Cardiac Surgery Review, 2021.

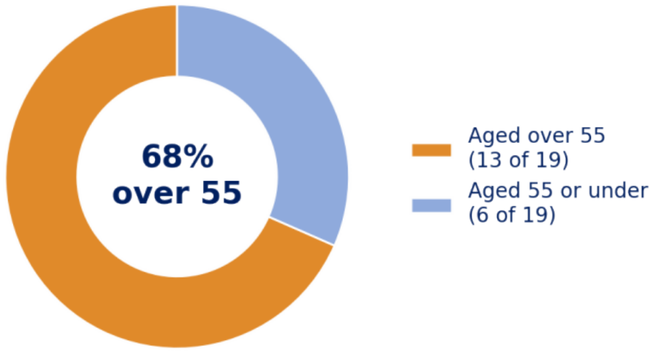
- Cardiothoracic surgery has the longest reported median wait of any specialty in Wales.
- In August 2026, Cardiff and Vale reported an average wait of 12 weeks and Swansea Bay 11 weeks. The longest-waiting 10% exceeded 47 and 34 weeks respectively.
- Day-of-surgery admission remains well below the 50% target at both centres.
- UHW reported 16 emergency thoracic aortic operations in 2024/25 and Morriston 14. The published 24-case figure is a volume signal, not a formal standard.

So What?

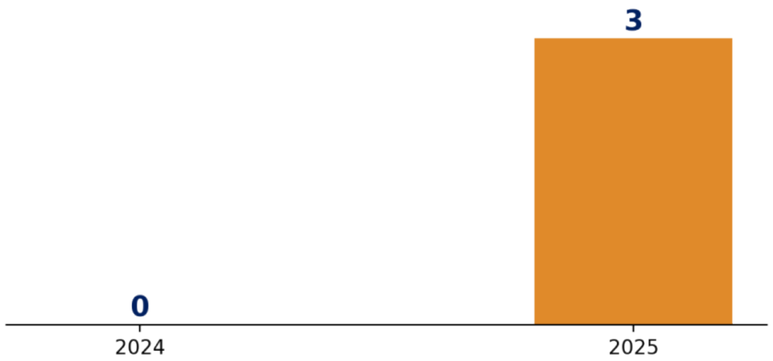
Prolonged waits and low-volume emergency aortic activity leave material access and organisational questions unresolved.

Material Workforce and Training Risks

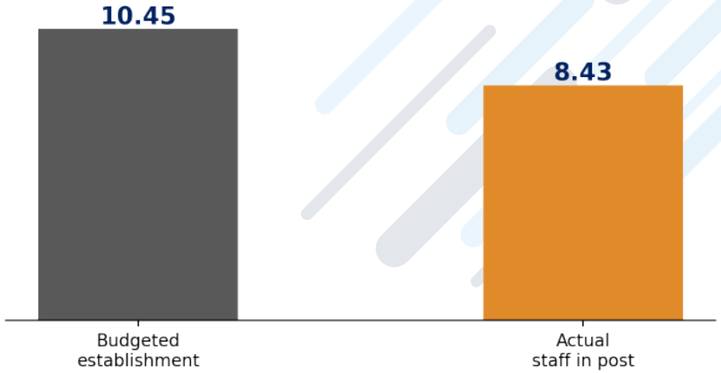
Welsh cardiothoracic consultant workforce age profile



GMC National Training Survey 'red flag' outcomes, Wales cardiothoracic



Cardiff perfusion workforce (WTE)



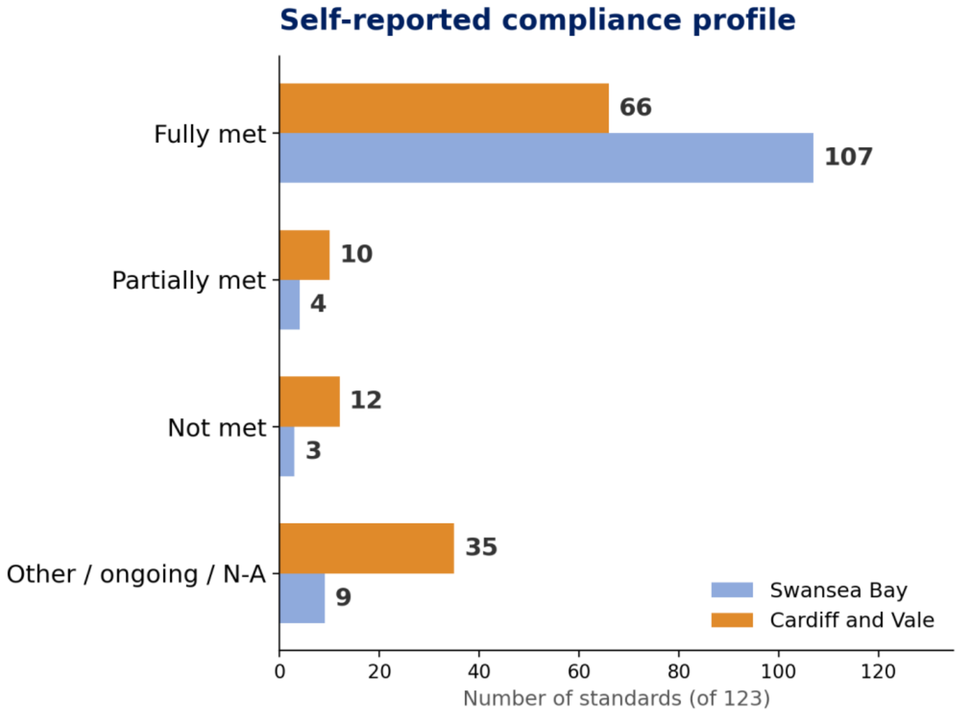
- Surgery: available age-profile and succession evidence indicates material retirement risk, but provider datasets are incomplete and not directly comparable. There was no ST1 recruitment in August 2025 or August 2026; examination results require interpretation alongside small denominators.
- Perfusion: Cardiff training paused since 2024 — the College's own review says resuming it now "would be irresponsible."
- Anaesthesia and critical care: comparable provider workforce data remain outstanding. RCoA analysis cited by ACTACC estimates a UK-wide shortage of approximately 2,147 consultant/SAS anaesthetists; this is relevant national context, not proof of the position at either South Wales unit.
- Providers report significant theatre cancellations, many attributed to staffing or scheduling. The submitted periods, categories and denominators are not directly comparable and require reconciliation before drawing provider comparisons.

Sources: HEIW, 2025; GMC National Training Survey, 2024–25; JCST FRCS(CTh) examination results, 2020–24; College of Clinical Perfusion Scientists Review, 2024; Cardiff/Swansea provider returns, 2026; Clinical Case for Change Final Draft, Section 6.3. For balance: JCST elogbook data record a mean of 148 cases per trainee in Wales in 2025, above the 130 UK-wide average — reflecting a smaller trainee pool, not necessarily greater training capacity. Royal College of Anaesthetists workforce analysis, cited in ACTACC's response to the Clinical Case for Change Final Draft, September 2026.

So What?

The evidence identifies material workforce and training risks. Two small, separate units may compound these risks and weaken resilience; the review must test this.

Provider Self-Assessments: Not Yet Assurance



- Cardiff self-reports a gap on 22 of 123 standards. Swansea reports the identical standard as fully achieved on 19 of those 22 (86%) — only one standard, an all-Wales acute aortic rota, is a shared, mutually acknowledged gap.
- Both providers report compliance with the perfusion accreditation requirement. However, Cardiff's independent College review found insufficient annual case exposure to support student training, while contemporary independent accreditation evidence for Swansea has not yet been reviewed by the commissioner.
- Cardiff's data manager/analyst post was vacant from December 2024 — the dated cause of the reported NACSA/NICOR submission gap — and has now been recruited (start date pending); 97% of 2025/26 NACSA data has since been submitted.
- Cardiff's returns record 0% completion of the ethnicity field from April 2023 to March 2026. This prevents ethnicity-based access analysis for Cardiff; comparable Swansea evidence must be confirmed separately.

Sources: Cardiff and Vale UHB and Swansea Bay UHB, Provider Self-Assessments Against the Service Specification, 2026 (123 standards each); Clinical Case for Change Final Draft, Section 18; JCC Report Version 11.

So What?

Provider returns differ materially and require independent reconciliation. Self-assessment informs the review but does not demonstrate compliance, capacity or sustainability.

The Evidence-Gated Pathway to Options Appraisal

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Evidence gate 1 — Clinical Case for Change Final Draft
September 2026 (indicative)
IN PROGRESS
- Five professional body responses received and incorporated into the revised Clinical Case for Change.
- The responses informed additional evidence and assurance requirements for the next phase of the review.
- Provider factual verification remains ongoing.

Evidence gate 2 — Independent Stage 1 D&C modelling
At least 10–12 weeks from mobilisation
PENDING
- Procurement, financial and contractual approvals are required before mobilisation
- The independent commission will include ten-year demand projections
- Configuration-neutral; separate phase 2 modelling may later be required

Assurance and criteria gates
Late 2026 / early 2027 earliest indicative checkpoint
GATE
- CRG scrutiny plus local and external clinical assurance
- Incorporate findings; agree and independently review appraisal criteria

Robust options development
After the evidence-readiness gate
PENDING
- Develop future service configurations
- Apply evidence-derived appraisal criteria
- Phase 2 modelling / health-economic input if required

Public consultation
Timing follows options appraisal
SUBJECT TO APPROVAL
- Consult on developed options before any final decision
- Includes stakeholder, public and patient input

Final decision & implementation planning
Post-consultation
PENDING
- Final recommendations to Joint Committee
- Decision informs implementation planning and IMTP route

All dates are indicative and dependent on completion of the evidence gates; the reconfiguration programme is not expected to deliver a new model before 2029–2030. Sources: NWJCC Cardiac Review & Implementation, Critical Pathway, July 2026; NWJCC Cardiac Stage 1 D&C Pre-Tender Brief v1.5, 20 July 2026; Clinical Case for Change Final Draft, Section 6.5.

So What?

The pathway is sequential: timing follows evidence readiness, and any delayed gate shifts every subsequent date. Options appraisal begins only after the Clinical Case for Change, Stage 1 modelling, CRG scrutiny, local and external assurance, incorporation of findings and independent review of the appraisal criteria are complete.

Joint Committee Discussion

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The Joint Committee is asked to:

1. **AGREE that the evidence, supported by professional-society responses received to date, means the status quo cannot continue without a formal, independently assured review — but does not determine the future configuration.**
2. **APPROVE the revised evidence-gated pathway, including CRG scrutiny, local and external assurance, and independent review of evidence-derived appraisal criteria before options appraisal.**
3. **AUTHORISE independent, configuration-neutral Stage 1 demand-and-capacity modelling, including ten-year projections, to establish a contemporary baseline and address the identified assurance gaps.**
4. **AGREE that the programme will return at the evidence-readiness gate before configuration-specific modelling, options appraisal or formal consultation begins.**
5. **NOTE that provider-specific risks and improvement actions will continue through established escalation and assurance arrangements.**
6. **NOTE that no preferred configuration, host site, options-appraisal decision or service change is sought today.**

Summary of decisions sought. Full wording: JCC Report Version 11, Recommendations; aligned with the Clinical Case for Change Final Draft, Commissioner's Conclusion.

"Continuing without a formal review is no longer defensible. Choosing a future configuration now would be equally indefensible. The decision requested today is to endorse the evidence-gated route between those two positions."

Appendix

Supporting detail and illustrative material

Full detail sits in the Clinical Case for Change and the JCC report; these slides are provided for reference if the Committee wishes to explore further.

Clinical Interdependencies Around Cardiac Surgery

Service	Assessment	Clinical rationale — site-neutral
TAVI	Core in-scope service	BCIS: TAVI should coexist with cardiac surgery for treatment selection, modality transfer and complication management. ESC/EACTS 2021 VHD Guidelines (Table 4) require institutional co-location of cardiology and surgery, 24/7 — distinct from per-case surgical standby.
Transcatheter mitral/tricuspid	Critical interdependency	BCIS: mitral TEER should be delivered in cardiac surgical centres, though surgical bailout is not required for every case. ESC/EACTS 2021 VHD Guidelines (Table 4) require institutional co-location of cardiology and surgery, 24/7 — distinct from per-case standby.
Cardiogenic shock programme	Critical interdependency	GPICS V3: shock centres need 24/7 cardiology, MCS, imaging and defined referral/transfer pathways; early discussion with MCS-capable or advanced-HF centres. (GPICS V3, 3.7)
High-risk / complex PCI, incl. CTO PCI	Material network dependency	BCIS: MDT review for complex/CTO cases; on-site surgery not mandatory, but agreed emergency surgical-support and transfer protocols required. (BCIS, PCI in the UK, 2025)
Advanced echocardiography (TOE)	Critical interdependency	GPICS V3: immediate TOE availability required in cardiothoracic ICUs, 24/7 access to a competent clinician (1.8). ACTACC: TEE is a workforce issue — operators, accreditation, case exposure, succession — not just equipment. CICM: also flags PACS image-storage (1.6) and a 60-min TTE target in suspected shock.
Cardiac CT	Critical interdependency	Central to TAVI planning (annular sizing, anatomy, access) and thoracic aortic/aortovascular assessment; any model must show adequate capacity and timely access. (BCIS TAVI Position Statement)
Adult Congenital Heart Disease	Recommended — Wales-specific	Any future model must preserve referral, MDT and emergency pathways into the commissioned ACHD network; no assumption that ACHD surgery sits with the future service. (NHS England ACHD standards)
Advanced heart failure / MCS	Material network dependency	GPICS V3: 24/7 MDT access and early discussion with MCS-capable/advanced-HF centres; does not itself require MCS or transplant co-location at every site. (GPICS V3, 1.8/3.7)
Pulmonary hypertension & PTE	Relevant network dependency	Access to commissioned specialist PH pathways and PTE/BPA/transplant referral; no general requirement for co-location with cardiac surgery. (ESC/ERS PH Guidelines, 2022)
Cardiothoracic surgical training	Essential appraisal domain	HEIW-documented concerns on operative exposure, trainee progression, trainer capacity and recruitment; each future model must be assessed against these. (HEIW SBARs 2024–25; ECQC Report, Mar 2026)
Blood-product stock & supply-chain resilience	Essential appraisal domain	ACTACC (Sept 2026): concentrating high-risk activity concentrates blood-product demand — stock, storage and out-of-hours lab resilience must be assessed for any configuration. (ACTACC response, Sept 2026)
Coagulation monitoring & patient blood management	Essential appraisal domain	ACTACC (Sept 2026): major omission — ACT/anticoagulation monitoring, viscoelastic testing, cell salvage, antifibrinolytic and major-haemorrhage protocols, 24/7 lab support. (ACTACC response, Sept 2026)

Appendix — Highly Specialised Pathways Provided Through English Centres

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Established cross-border pathways include:

- Selected highly complex aortic procedures, including frozen elephant trunk surgery.
- Advanced cardiogenic-shock support, including VA ECMO and temporary mechanical circulatory support.
- Adult respiratory ECMO, specialist pulmonary-hypertension care and pulmonary thromboendarterectomy.
- Bridge-to-heart transplant support for adults.

Sources: NWJCC Annual Plan 2026–27; Clinical Case for Change Final Draft, Section 17; JCC Report Version 11. Patients are referred to established NHS England centres for these pathways; the full scale, destinations and patient impact of these cross-border pathways have not yet been mapped (JCC Report Version 11).

So What?
Cross-border dependency is not, by itself, evidence of service failure. The review must test which pathways should safely and sustainably be provided in Wales and which should remain within formal supra-regional networks.

Appendix — Illustrative Model Families for Later Assessment

- These are broad model families for later, evidence-led assessment against agreed criteria — not developed options, and none is preferred.

Model 1: Continue the Current Two-Centre Arrangements	Model 2: Two-Centre Hybrid or Integrated Network	Model 3: Single Consolidated Cardiac Surgical Service
Preserves local access; must demonstrate standards can be met without unverified assumptions.	Retains roles at both sites; must demonstrate genuine integration, not the status quo relabelled.	Concentrates activity in one service; benefit must be demonstrated against transition risk and travel burden.

Model definitions as set out in the Clinical Case for Change Final Draft, Section 13. Not developed options; not weighted or scored.

So What?

No configuration or host site has been selected, preferred or excluded. These families exist to be tested against evidence-derived criteria, not to signal a direction of travel.