



Welsh School of Intensive Care

SSY Handbook

Version 1.0 2022

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1. Introduction

The special study year (SSY) is undertaken during stage 2 of ICM training. Dual trainees will undertake an SSY in their parent specialty whereas single ICM CCT trainees will have the opportunity to build upon a skill or area of special interest.

The SSY period lasts for 12 months, it is expected that at least 50% of that time will be dedicated to clinical duties with the other 50% dedicated to non clinical duties or specialist skills.

1.1 Choosing an SSY

The choice of SSY should reflect an area that the trainee is interested in building upon with a view to their future consultant career. There is no prerequisite for experience in any of the subject matters, modules can be tailored to the individual depending on their prior level of expertise.

Trainees should consider their SSY choice early in stage 2 training, this will maximize chances of getting their first choice. Each hospital offers a different set of SSY's (see below), the majority of trainees will undertake their SSY within the Welsh deanery. There are options to apply for SSYs outside of deanery if the skill isn't offered in Wales, for example ECMO, this will however need to be arranged in advance.

1.2 Application

In deanery application should be discussed with the.....there is currently no formal application process for Welsh deanery SSYs but this may change if there is high demand for a particular module.

Out of deanery SSYs should be discussed with the TPD as early as possible to ensure a trainees post is covered in their absence. There are a variety of application methods which are discussed further below.

1.3 Assessment

Assessment varies depending on the type of skill chosen, at the end of the module a learning outcome completion form (LOC) should be completed by the trainee's educational supervisor. The LOC should demonstrate that the trainee has met the aims and objectives of that particular module. More information regarding assessment and learning objectives can be found in the FICM SSY handbook [here](#).

1.4 Subject areas

The following areas have been approved by the college for SSY modules. Not all are available within Wales but can be achieved instead outside of region. The college is open to further suggestions for SSYs, however these need to be prospectively approved.

Clinical SSYs	Academic SSYs
Cardiothoracic	Academic research
Echocardiography	Education
ECMO	Quality Improvement
Home Ventilation	
Neuro Intensive Care	
Paediatric Intensive Care	
Pre hospital (PHEM)	
Transfer Medicine	

PHEM

Entry into the PHEM programme is via national recruitment undertaken in stage 1 of training. Successful candidates will undertake 12 months of PHEM training during their SSY year and will receive sub specialty accreditation in PHEM. Applicants must have at least 6

months training in each of the following specialties: Anaesthetics, ICM, Acute medicine and Emergency medicine. Details of the application process can be found [here](#).

Paediatric intensive care

Paediatric intensive care can now be undertaken as an accredited sub speciality, much the same as PHEM. Entry into the training programme is via national recruitment and is overseen by the Royal College of Paediatric and Child health. In addition to the standard 3 month PICU placement undertaken in stage 2, successful applicants will undertake their 12 month SSY in PICU with an optional additional 3 months PICU training. Further information about the programme and application process can be found [here](#).

The paediatric SSY, however, is for trainees with an interest in paediatrics but not wishing to apply to the national recruitment programme. It is aimed at individuals who will become consultants in non specialist hospitals that will take on a lead role in the provision of emergency paediatric care prior to transfer to a tertiary center. Trainees undertaking the SSY will not obtain sub specialty accreditation but should follow the approved PICM training curriculum which can be found [here](#).

2. Welsh Deanery Clinical SSYs

2.1 Echo

2.1.1 University Hospital of Wales

2.1.2 Morriston Hospital

2.1.3 Ysbyty Gwynedd

2.1.1 University Hospital of Wales

Echo SSY



College Tutor: Dr Sonya Daniel

SSY Lead: Dr Chris Gough

The Opportunity

UHW Critical Care will offer a supervised Special Skills Year for 1 doctor in training per academic year to join the echocardiography team. Doctors in training will have the opportunity to gain experience in the delivery of all aspects of critical care echocardiography. We are a department that has established itself as a leading centre for critical care echo, with a ground-breaking governance and support structure. We have a proven track record of supporting doctors in training through echo accreditation. We are one of the only critical care units in the UK to have a full time echo physiologist based on the unit.

The program in UHW directly relates to the [SSY handbook](#). The requirements of section 5, which relates directly to echocardiography, can be achieved with relative ease during this placement. More importantly, we hope to impart a passion for critical care echocardiography which will remain with successful applicants throughout their professional careers.

Time commitment and location

Doctors in training will be expected to protect 50% of their time to their Specials Skills Year activities. The opportunity is based in Cardiff, and the other 50% of their time will be spent providing clinical expertise to a large tertiary ICU.

Approval

Prior to applying for this opportunity, doctors in training will be expected to discuss with the Training Programme Director for their own Deanery.

Activities

It is expected that the doctor in training will engage with a wide range of activities on the programme. These are likely to include most of the following elements:

- Formal period of training in the principles of critical care echocardiography.
- meet requirements for BSE Level 1 accreditation.
- gain insight into critical care echocardiography, the set-up of a leading regional centre, and enable the trainee to develop skills to take on a leading critical care echo role in the future.
- 50% protected, formal echo activities in an inpatient and outpatient setting with regular 1-to-1 training sessions with a BSE level 2 accredited supervisors.
- It is expected that you will attend the annual BSE conference.
- You will attend monthly critical care echo review meetings and share interesting echo findings.
- You will be supported to lead on at least one echo-related QI/audit project.
- You will have an opportunity to be supported to lead on an echo-related research project.
- It is expected that you will achieve at least one publication or presentation at a national conference on an echo-related topic.

Supervision

Supervision will be provided by a member of the Critical Care echocardiography team who will meet the supervision requirements set out in Section 13.5 of the SSY Handbook:

The Supervisor will be:

- A BSE Level 2 accredited Intensivist or Physiologist, with regular, job-planned commitment to critical care echo.
- Engaged in a regular QA process of their work to ensure they are practicing at the highest possible level.
- Actively engaged in their re-accreditation process to ensure their knowledge is up to date.

Supervisors: Dr Chris Gough, Dr Joe Riddell, Ms Bex Parsons-Simmonds

Assessment

Assessment is based on:

- Logbook of echocardiography related activities
- Presentations at local teaching and Quality & Safety meetings
- Successful completion of BSE Level 1 accreditation
- Presentation of QI project at national meeting
- Design, plan and delivery of a echo-related quality improvement project with a report on what changes have been implemented as a result of the project, how and to what effect
- Senior review and feedback on echo activities
- Achievement of the Learning Objectives for section 5 as set out in the SSY handbook

Eligibility

To be eligible to apply for this Special Skills year, the doctor in training must fulfil the following criteria:

1. Have a National Training Number in Intensive Care Medicine as a single CCT
2. Have completed or are expected to complete stage 1 training
3. Be able to demonstrate an interest in echocardiography
4. Have written permission from the responsible Training Programme Director (or other responsible officer) confirming eligibility and support to undertake a special skills year in echocardiography.

Application process

Interested individuals should send a CV, and cover letter explaining why they are suited to the opportunity to the following email address. Applicants should seek approval from their Training Programme Director prior to application and provide written confirmation of this approval at the time of application.

Christopher.gough@wales.nhs.uk (Clinical Lead for Critical Care Echo)

Eligible applicants may be invited for an interview.

2.1.2 Morriston Hospital

Echo SSY



College tutor: Dr Scott Bradburn

SSY lead: Swansea University – Dr Emma Rees

Overview

This SSY is designed for trainees either with an interest in intensive care echocardiography. It is offered in collaboration with the Swansea University. It would suit individuals working towards BSE level 1 accreditation and or FUSIC.

This module provides echocardiography trainees with the knowledge and skills to perform and report high-quality transthoracic echocardiography. The focus is on developing a sound understanding of the normal echocardiogram.

The SSY trainee will split their time between theoretical lectures and supervised practical echocardiography experience within ICU and clinic.

Time commitment and location

The module requires 36 hours theoretical knowledge acquisition via face to face lectures and e-learning. There is a practical component requiring 24 hours of supervised practice.

It is estimated that 300 hours of practice, supervised practice and clinical application is needed to complete the module.

Activities

1. Lectures and seminars with regard to anatomy and physiology of echocardiography.

2. E-learning with regard to theory underpinning echocardiography
3. Practical experience on ICU and in echo clinic
4. Supervision provided within ICU for FUSIC accreditation

Supervision

Supervision will be provided by university staff, echocardiographers, ICM clinicians and cardiology clinicians.

Assessment

As per the SSY handbook.

1. Work based portfolio including 3 x CBD and 3 x DOPS. (equivalent to 2000 words)
2. OSCE on a normal subject in a clinical environment
3. MCQ on clinical scenarios
4. FUSIC accreditation as per FUSIC criteria.

2.1.3 Ysbyty Gwynedd

Echo SSY



Bwrdd Iechyd Prifysgol
Betsi Cadwaladr
University Health Board

College Tutor: Dr Will Sutcliffe

SSY Lead: Dr Will Sutcliffe

Overview

This post is designed to support those with focused echocardiography accreditation who are looking to gain specialist echo skills. They will be supported to achieve level 2 BSE accreditation in Adult Critical Care Echocardiography.

Time commitment/ location

The accreditation process takes up to two years, so may not be completed within the 1 year SSY. Working week will be split between ICM and echo. Four days per week ICM work including on-calls, with opportunities to perform Level 2 scans. There will be opportunity to use half a day of critical care time to supervise FUSIC candidates once mentor status achieved. One day per week dedicated echo, covering pre-op assessment echo clinic and general OPD lists for experience and supervision. This post is currently being run as full time post, but LTFT can be discussed with SSY lead in conjunction with TPD. All clinical duties and echo lists will be in Ysbyty Gwynedd, Bangor. Teaching on FUSIC course would occur at the national imaging academy wales, Pencoed.

Activities

It is expected that most of the following elements will be achieved by the end of the course:

1. Be able to triage critical care echocardiography requests.
2. Be able to independently scan a critical care patient to BSE minimum data set.
3. To independently report Level 2 scans, with supervision.

4. Gain FUSIC mentor status within 6 months.
5. Able to supervise FUSIC candidates and support their progress to accreditation, to help gain skills for echo service lead role.
6. Opportunity to teach on a FUSIC course, to help gain skills for echo service lead role.
7. Opportunities to learn safe pericardiocentesis and aftercare.
8. Opportunities to improve other POCUS imaging capability if proceeding well with ACCE.

Supervision

ICM supervision will be by Dr Will Sutcliffe, BSE Level 2 TTE. General OPD lists will be directly supervised by BSE accredited sonographers for first 3 months at least, with local indirect support for reporting there-after. Pre-op Assessment Clinics run alternate weeks allowing integration with anaesthetic services.

Assessment

Assessment will be as per the SSY handbook criteria, p18-19. Mandatory elements are as follows:

- Knowledge component will be assessed by the written component of Advanced Critical Care Echocardiography accreditation.
- Practical skills will be assessed by the presentation of 5 video cases of standard acceptable for ACCE practical exam.

Application process/ who to contact for more information

Contact Dr William Sutcliffe via email at William.sutcliffe@wales.nhs.uk

For further information on the BSE ACCE accreditation process, access [Critical care echocardiography accreditation \(bsecho.org\)](https://www.bsecho.org/critical-care-echocardiography-accreditation)

2.2 Transfer

NB: Can be done in all training ICUs



2.2 Transfer Medicine

SSY lead: Dr Mike Slattery

Overview

This SSY is designed for trainees either with an interest in Transfer Medicine or looking to apply for Pre-Hospital Emergency Medicine training. It is offered with the Welsh Adult Critical Care Transfer Service which operates from Cardiff Heliport and Ysbyty Gwynedd, Bangor, serving the All-Wales Critical Care Network. The service was established in 2021 and undertakes approximately 600 transfers per year. The service sits within the governance structure of the Emergency Medical, Trauma and Retrieval Service (EMRTS Wales).

The two bases undertake transfers across the spectrum of Critical Care including, but not limited to:

- Time critical interventions
- Escalation of care
- Repatriation
- Capacity transfers
- Retrieval from peripheral hospitals

Each transfer ambulance is fully equipped to provide seamless care between ICUs and deliver the same standard of care regardless of location.

Time commitment and location

The current model assumes a 50% commitment to transfer medicine with the remaining 50% of the trainees time being spent on one of the regions general ICUs. The transfer

component is based on a full time 40 hours per week (ie 20 hours per week), delivered via an annualised rota system.

The transfer shifts differ in length between bases. Shifts operating in Cardiff are 12 hours long from 0800 to 2000. Shifts in Bangor begin at 2000 with an overnight on call period for time critical transfers only followed by a day shift from 0800 to 2000. If called out overnight, there is an 11-hour rest period that begins upon return to base.

At the beginning of the attachment, there is a week-long training period including lectures, small group sessions and simulation-based training. There are monthly Clinical Governance meetings delivered in person and accessible via Teams.

Activities

- Undertake critical care transfers within remit of the service
- Perform regular equipment and drug checks
- Participate in governance/QI activities
- Opportunity for funding to sit DipRTM
- Attend monthly clinical governance days
- Opportunity for 3rd seat with EMRTS
- Provide education/development for service

Supervision

ACCTS Clinical Lead will act as the Clinical Supervisor for the transfer component, an in hospital educational supervisor will be allocated for the GICU component. Initial period of supervised shifts followed by independent practice and regular communication with supervisor.

Assessment

As per the SSY handbook.

Must complete initial induction training week successfully. Option and encouraged to sit the Dip RTM during rotation. Reflective practice encouraged. A logbook is encouraged but details of transfers undertaken can be obtained through electronic records.

3. Welsh Deanery Non Clinical SSYs

3.1 Education

3.1.1 Prince Charles Hospital

3.1.2 The Grange

3.1.3 UHW Simulation

3.1.4 Morriston Hospital

3.1.1 Prince Charles Hospital

Education SSY



College Tutor: Dr Najia Hasan

SSY Lead: Dr Najia Hasan

Overview

12 months duration

Time commitment/ location

The post will be based in Prince Charles Hospital. A minimum of 50% of protected time will be provided for specialist module activities.

Activities/Aims of the post

The intensive care unit in Prince Charles Hospital is a growing and evolving unit. We are currently a 9 bedded unit and will be expanding to at least 12+ beds over the next 2 years. There are a variety of teaching opportunities as there are learners from different levels rotating through the unit. We also provide observership opportunities to trainees from other disciplines such as cardiopulmonary and sleep medicine.

The main aims of this fellowship are based on the educational objectives outlined in the FICM SSY handbook.

These include:

- Ensuring safe and effective patient care through training
- Establishing and maintaining an environment for learning
- Teaching and facilitating learning – trainees will be given opportunities to facilitate learning for learners coming from different clinical backgrounds and level of seniority

including core trainees, junior nurses, ACCPs and IMTs. Teaching will be delivered using a combination of problem based (case based) learning, appraisal of evidence, morbidity and mortality meetings and simulation-based teaching.

- Enhancing learning through assessment
- Supporting and monitoring educational progress – we will provide opportunities for mentoring, teamwork, and other avenues for professional development processes
- Guiding personal and professional development
- Continuing professional development as an educator

Specifically, the fellow will be supported to develop the existing educational platforms and other aspects of teaching/training material. They will be expected to develop an understanding of the level of knowledge required at different stages of training and then to undertake a review of existing learning opportunities and identify gaps to formulate a comprehensive teaching package with the help of their supervisor.

The post holder will be required to work across different professional groups that constitute the multidisciplinary framework of the intensive care unit.

General clinical responsibilities will include:

- a. Participate in the 1 in 8 airway rota to maximise the clinical experience
- b. Daily review on ICU patients and present findings on the ward round
- c. In conjunction with the consultant support the clinical decision making of junior medical and nursing staff as the senior member of the critical care team
- d. Review critically unwell patients outside of critical care, admits, stabilize, and formulate an initial management plan
- e. Initiate ventilation, use vasopressors, insert lines and transfer critically unwell patients

Supervision

Trainee will be working in close collaboration with the supervisor and will have monthly supervisor sessions to discuss progress and identify any barriers to acquisition of relevant experience

Assessment

As per the SSY handbook

3.1.2 The Grange

Education SSY



College Tutor: Dr Sam Beckett

SSY Lead: Dr Sam Beckett

Overview

The Post holder will be responsible for organizing the ICU teaching Programme with the faculty tutor. They will deliver teaching sessions to the trainees regularly and be responsible for finding external speakers to deliver relevant teaching to the department. Throughout the year, there will be opportunities to develop teaching skills using a number of mediums (lecture based, bedside, SIM based, Online etc). The post holder will be expected to develop an educational Programme (face to face course, online learning module or similar) with the intent of it being a long term, recurring event. There is also the possibility of funding for a higher level teaching qualification.

Time commitment/ location

- The Grange University Hospital
- ~50:50 split between educational duties and clinical/on call duties – Will have on call commitment on airway ICU Rota at GUH.

Activities

- Regular delivery of departmental and regional teaching (minimum 4x monthly as per curriculum specification)
- Development of teaching skills using various mediums.
- Development of a regional/national educational course related to ICU, using traditional education techniques, online learning and simulation based learning.
- Possibility of funding for PGCert MedEd

Supervision

- Direct from SSY lead but also input from a department with multiple interests in education.

Assessment

- Development of educational portfolio as per FICM ICM Curriculum (SSY section)

Application process/ who to contact for more information

- Contact: Samuel.beckett@wales.nhs.uk

3.1.3 University Hospital of Wales

Education/ Simulation SSY

College Tutor: Dr Sonya Daniel

SSY Lead: Dr Sara Cook



The Opportunity

UHW Critical Care will offer a supervised Special Skills Year for 1 doctor in training per academic year to join the team.

This Special Skills Module is intended for doctors who are considering developing a special interest in Simulation-Based Education and Training (SBET) in their Consultant career. It intends to further a doctor's professional development as an educator through taking part in a wide variety of SBET activities, reflection and evaluation.

The learner may enter this Special Skills Year Module with little or no experience in medical education and/or SBET or may have knowledge (e.g. hold a Certificate in Medical Education or similar) and experience of varying levels with medical education and/or the design and delivery of SBET, that this year will build on.

The program in UHW directly relates to the [SSY handbook](#). The requirements of section 13, which relates directly to education, can be achieved with relative ease during this placement. More importantly, we hope to impart a passion for simulation-based education which will remain with successful applicants throughout their professional careers.

The intention of this SSY is to develop/further develop the required skills needed to design and deliver SBET, gaining knowledge and/or experience in

- simulation centre delivery
- in-situ simulation delivery
- interprofessional education delivery
- simulation standards
- simulation Quality Assurance
- non-technical skills

- using simulation for patient safety and quality improvement
- working as part of an education team
- reflection and evaluation

Time commitment and location

Doctors in training will be expected to protect 50% of their time to their Specials Skills Year activities. The opportunity is based in Cardiff, and the other 50% of their time will be spent providing clinical expertise to a large tertiary ICU.

Approval

Prior to applying for this opportunity, doctors in training will be expected to discuss with the Training Programme Director for their own Deanery.

Simulation on Cardiff Critical Care

- Designated Simulation Space on the Critical Care Unit (A3 corridor)
- Cross Critical Care Interprofessional Educational Forum; meet three-monthly
- Weekly simulation sessions (Fridays) as part of the Medical Daily Teaching Programme
- Twice monthly interprofessional simulation sessions for all staff
- Twice monthly 'Simulation Faculty Development' sessions covering a breadth of topics
- Three-monthly Consultant Skills Afternoons
- Very busy Nursing Education Team with extensive simulation use
- Consultant Critical Care Physiotherapist with a particular interest in Immersive Technologies
- 4 Consultants with specialist interest and experience in Simulation delivery (x2 also work at Cardiff University, x1 at HEIW)

Educational Objectives

By the end of the SSY the trainee will be able to:

- Write simulation scenarios that successfully deliver on the intended learning outcomes

- Develop and deliver a pre-brief with each simulation event
- Facilitate/run simulation scenarios independently
- Compare and contrast between different manikins and SBET related equipment and resources
- Describe different available debriefing models
- Lead on debriefing with supervisor support
- Create a simulation evaluation tool for each simulation event
- Work as part of a multi-professional education team to plan interprofessional SBET
- Discuss the key principles of psychological safety and safe learning environments
- Describe the role of simulation as a tool for systems testing and QI as well as for education
- Understand about simulation and human factors
- Identify potential opportunities where Immersive Technologies could be used for education and training across Critical Care

By the end of this SSY the trainee will have:

- Attended a Simulation Faculty Development course
- Started gathering evidence for ASPiH accreditation
- Taken advantage of any available opportunities to observe the 'management' perspective of SBET on a local, national and international basis
- Led on organising, planning and delivering a pathway/protocol/system testing or QI-based simulation scenario e.g. fire evacuation drill

Supervision

The supervisors will be:

- The clinical lead for critical care simulation and Cardiff University acute care education & simulation lead.
- Trained in simulation methodology internationally.
- Engaged in a regular QA process of their work to ensure they are practicing at the highest possible level.

- Actively engaged in both local and regional multidisciplinary simulation.

Lead Supervisor: Dr Sara-Catrin Cook, Associate Dean for Simulation, Health Education and Improvement Wales (Project Lead)

Assessment

- Logbook
 - Log of all SBET activity and role
 - Minimum of four SBET activities per month, minimum 25% should be interprofessional
 - Self-reflection on each SBET activity
 - Results of participant evaluation collected from each SBET activity
- Peer review and feedback, at least one SBET activity per month
- Senior review and feedback, at last one SBET activity per month
- Attendance at a Faculty Development Course
- Attendance at HEIWs Simulation Team webinars (usually 3-monthly) or equivalent simulation-based meetings
- Submission of an abstract to a Simulation Conference
- Design, plan and delivery of a systems testing/QI-based simulation scenario with a report on what changes have been implemented as a result of the simulation event, how and to what effect
- Achievement of learning objectives as set out in section13 of the SSY handbook

Eligibility

To be eligible to apply for this Special Skills year, the doctor in training must fulfil the following criteria:

1. Have a National Training Number in Intensive Care Medicine as a single CCT
2. Have completed or are expected to complete stage 1 training
3. Be able to demonstrate an interest in simulation-based education
4. Have written permission from the responsible Training Programme Director (or other responsible officer) confirming eligibility and support to undertake a special skills year in education.

Application process

Interested trainees should send a CV, and cover letter explaining why they are suited to the opportunity to the following email address. Applicants should seek approval from their Training Programme Director prior to application and provide written confirmation of this approval at the time of application.

Sara.c.cook@wales.nhs.uk (Clinical Lead for Simulation)

Eligible applicants may be invited for an interview.

3.1.4 Morriston Hospital

Education SSY



College Tutor: Dr Scott Bradburn

Overview

The Swansea medical education SSY is aimed at those who wish to develop and consolidate their experience in medical education. The SSY is run in collaboration with Swansea University Graduate Entry Medical Student program

Time commitment

Trainees will be expected to spend approximately one day a week embedded in the integrated clinical skills program at Swansea Medical School, in addition they will deliver teaching within the Morriston ICM teaching schedule including simulation teaching. There will also be an opportunity to collaborate with the team that runs the Welsh Intensive Care Revision course for the FICM exam for two 1 day practice courses, and to participate in writing, moderating and invigilating the postgraduate medical exams.

Activities

It is expected that most of the following elements will be achieved by the end of the course:

1. To participate and lead integrated clinical skills tutorials
2. Participate and lead ICM tutorials for trainees on the ICU.
3. Participate in or lead the development of FICM revision resources.
5. Participate and lead MDT simulation sessions on general ICU.
6. Design, mark, and moderate assessments according to best education practice

Supervision

Supervision will be provided by a member of the integrated clinical skills faculty and the Morriston Hospital Faculty Tutor for ICM. Some sessions will take place remotely.

Assessment

1. Peer review of teaching method, regular comprehensive reflection of teaching methods and delivery with feedback.
2. Faculty feedback from the integrated clinical skills team
3. To produce at least 2 high quality online video tutorials for intensive care trainees working towards their FICM exam.
4. To write 2 mock questions for the Welsh national FICM revision course, which are moderated and accepted by the revision course faculty.

Application process

Interested trainees should contact scott.bradburn@wales.nhs.uk to informally discuss opportunities.

3.2 Research

3.2.1 Royal Glamorgan

3.2.2 The Grange

3.2.3 University Hospital of Wales

3.2.4 Morriston Hospital

3.2.1 Royal Glamorgan Hospital: Research SSY



College Tutor: Dr Bethan Gibson

SSY Lead: Dr Ceri Lynch

Overview

This SSY aims to allow the trainee to gain insight into clinical trial design and management, understand the environment and enable the trainee to undertake portfolio research in the future. The objectives are as follows:

- Understand the process of obtaining research permissions
- Principles of Good Clinical Practice
- Principles of good randomised controlled trial design
- Governance framework of NHS research

Time commitment/ location

50% of the trainee's time will be spent undertaking research activities and 50% will involve shifts on the intensive care at the Royal Glamorgan hospital. The ICU is recognized for both stage 2 and 3 ICM training and is also able to offer critical care ultrasound and echo training.

The Royal Glamorgan ICU research portfolio:

- Highly 'research active' unit.
- Has built a good national reputation over the past 5 years, with excellent recruitment into large national and international trials as well as running some small original studies. Frequently seen in lists of top ten recruiting sites (including PRISM trial, 65 trial, *Genomicc* and *Recovery*).
- Welsh critical care peer review commented that our site is "punching above its weight" with regard to clinical research.

- Currently participating in 6 large scale studies; 3 interventional and 3 observational. One study currently in set-up, due to open soon and several more under consideration, dependent on staff and resources.
- Widespread collaboration with anaesthetics (several studies ongoing and in set up), surgical and medical specialties. Good working relationship with excellent and supportive research and development team including research officers, nurses and pharmacists.

Activities

- The trainee will participate in ongoing studies on the intensive care unit, recruiting patients, providing trial interventions and collecting data as well as helping to plan and set up new studies.
- The trainee will be the link person for any ongoing All Wales critical care research study and will be named as such on any resulting publication.
- The trainee will have ample opportunity to lead a study as a co-PI or as part of the NIHR Associate PI scheme.
- The trainee will be supported to pursue their own research idea and apply for appropriate funding, approvals and permissions.
- It is anticipated that the trainee will have their name on at least one peer reviewed publication and will have at least one study to write up and present at a national meeting.
- Attachment at Cardiff Clinical Trials Unit will be arranged to broaden experience in this area.
- Formal research training can be arranged as required via attendance at local, national and NIHR courses including Good Clinical Practice, Research Methods, Becoming a Principal Investigator, Developing a Research Idea.
- There will be an opportunity to obtain a masters qualification

Supervision

We propose three supervisors to ensure sufficient availability and expertise: Dr Ceri Lynch (clinical and academic mentor); Professor John Geen (academic mentor); Professor Neeraj Saxena (academic mentor).

Dr Ceri Lynch

- Consultant in anaesthetics and intensive care medicine and critical care research lead for Cwm Taf Morgannwg UHB.
- Welsh Intensive Care Society audit and research lead, Welsh representative on UK Critical Care Research Forum; member and Deputy Chair of Welsh Critical Care Research Group.
- Principal Investigator for a large number of studies (completed and ongoing).
- Recently awarded a substantial grant from Health and Care Research Wales for a 2 year research project in collaboration with the Centre for Trials Research in Cardiff University in which the trainee could participate.
- One of eight exemplar Welsh Government STEM female role models during the COVID-19 pandemic.
- Link person for Welsh Anaesthetic Audit Research and Engagement Network (WAAREN) and the soon to be established Welsh intensive care trainee research network.

Prof. John Green

- Consultant Clinical Scientist (Clinical Biochemistry) and Clinical lead for Cwm Taf Morgannwg University Health Board's Clinical Biochemistry Service.
- Visiting Professor of Clinical Science at the University of South Wales and Honorary Professor of Clinical Biochemistry at Cardiff Metropolitan University.
- Member of the Support and Collaboration Committee, Cwm Taf Morgannwg Research & Development representative at Welsh Government and with Health and Care Research Wales.

Prof. Neeraj Saxena

- Consultant in anaesthetics and pain management, Cwm Taf Morgannwg UHB
- Clinical Senior lecture Cardiff University School of Medicine

- Awarded the NISCHR Clinical Research Fellowship in 2014
- Ongoing research in Cardiff University Brain Research Imaging Centre.

Assessment

- GCP certificate
- Mock-up of funding application
- Mock-up of permissions application
- Logbook
- Viva examination of project thesis organised by supervisor
- Presentation at a national research meeting
- Peer reviewed publication
- Project based Discussion (PbD)

Application process/ who to contact for more information

For further information, or to apply for this SSY, please contact Dr Ceri Lynch
(Ceri.Lynch5@wales.nhs.uk)

3.2.2 The Grange

Research SSY



GIG
CYMRU
NHS
WALES

Bwrdd Iechyd Prifysgol
Aneurin Bevan
University Health Board

College tutor: Dr Sam Beckett

SSY lead: Prof Tamas Szakmany

Overview

The post holder will engage in the critical care unit ongoing research activities. The post will offer an opportunity to learn about research delivery in the critical care setting. During the post the trainee will be part of the current critical care research team and help with recruitment to existing studies. Throughout the year, there will be new trials setup, some will close and it will be expected that the trainee will be able to take part of the whole trial setup, reporting and trial closure activities. There will be an opportunity to take part in the associate PI scheme run by the NIHR and if appropriate the trainee will be able to assume PI responsibilities for shorter observational studies.

During the post, there will be opportunity to develop a retrospective research project from the data collected on various patients groups over the last years and the trainee is expected to be able to submit abstracts for national and international meetings based on this. There is also a possibility to be involved in publications and depending on the progress during the year it is expected that the trainee will publish a first author paper.

Further opportunities during the post may arise to be involved in studies which are at very early phase of development and funding application, to give the trainee the insight of trial development from inception to funding.

Time commitment and location

50% research, 50% clinical duties, all based in GUH

Activities

- Recruitment to ongoing studies
- Consenting patients
- Site file maintenance
- Adverse and serious adverse event reporting
- Training and teaching of clinical staff on trials
- Participation in trial management meetings
- Developing own data driven research proposal
- Learning basic and intermediate level database handling and statistics
- Maintaining GCP standards
- Development of close collaboration with the MDT research team, including nursing, AHP, pharmacy and laboratory personnel
- Promoting research for all staff groups
- Co-leading medical student SSC projects (year3/year4)
- Maintaining clinical standards and progressing in the FICM curriculum
- Participating in the critical care on-call rota

Supervision

FICM Educational supervisor +/- Research supervisor (Prof Szakmany) these two roles might be combined.

Assessment

Regular Educational supervisor meetings and monthly research team meetings to assess progress.

Application process/ who to contact for more information

- Contact: Samuel.beckett@wales.nhs.uk

3.2.3 University Hospital of Wales

Research SSY

College tutor: Dr Sonya Daniel

SSY lead: Dr Joseph Riddell



The Opportunity

The UHW Critical Care Research Department will offer a supervised Special Skills Year for 1 doctor in training per academic year to join the team. Individuals will have the opportunity to gain experience in the delivery of all aspects high quality interventional clinical trials. We are a department with a proven track record of publications in high-impact international journals such as NEJM and Critical Care. We have been the UK national lead centre on a number of practice-changing clinical trials such as the TTM trial and continue to be involved in high-quality international clinical research.

The SSY in UHW directly relates to the [2021 ICM curriculum](#), which contains 14 Higher Level Learning Outcomes (HiLLOs). HiLLO 3 relates directly to research:

- HiLLO3: An Intensive Care Medicine specialist will know how to undertake medical research including the ethical considerations, methodology and how to manage and interpret data appropriately.

All ICM trainees are required to complete the requirements of HiLLO3 which can be achieved with relative ease during this SSY; More importantly, we hope to impart a passion for clinically driven, high-quality research which will remain with successful applicants throughout their professional careers.

Time commitment and location

Doctors in training will be expected to protect 50% of their time to their Specials Skills Year activities. The opportunity is based in Cardiff, and the other 50% of their time will be spent providing clinical expertise to a large tertiary ICU.

Approval

Prior to applying for this opportunity, doctors in training will be expected to discuss with the Training Programme Director for their own Deanery.

Activities

It is expected that the individual will engage with a wide range of activities on the programme. These are likely to include most of the following elements:

- Formal training with the CEDAR clinical trials unit with training in research methodology, trial design and delivery
- Completion of a GCP course to allow active participation in clinical trials
- Design, delivery and publication of an observational or post hoc analysis which can be completed with the aid of our statistician to facilitate publication during the SSY year itself
- Presentation of published materials
- Active involvement in weekly journal club meetings with critical appraisal of papers discussed
- Active enrollment of patients in ongoing RCTs/clinical trials with a logbook kept of enrollments
- Attendance at a national research conference

Supervision

Supervision will be provided by a member of the Critical Care Research team who will meet the supervision requirements set out in Section 13.5 of the SYS Handbook:

The Supervisor will be:

- The lead or deputy lead of the critical care research department with experience of publications in high-impact journals and is currently participating in clinical research trials.

Assessment

Assessment is based on:

- Design, planning and delivery of a research project with a report on background to research, methodologies, results and conclusions drawn.
- Enrolment logbook.
- Senior review and feedback on research activities.
- Submission of an abstract to a national conference and/or paper to a journal.
- Attendance at CEDAR clinical trials unit and GCP training.
- Presentations at journal club.
- Achievement of Learning Outcomes for section 3 as set out in the SSY handbook and HiLLO3 of the 2021 ICM curriculum.

Eligibility

To be eligible to apply for this Special Skills year, the trainee must fulfil the following criteria:

1. Have a national training number in intensive care medicine as a single CCT
2. Have completed or are expected to complete stage 1 training
3. Be an individual with some experience and understanding of clinical research or audit
4. Be able to demonstrate an interest in clinical research
5. Have written permission from the responsible Training Programme Director (or other responsible officer) confirming eligibility and support to undertake a special skills year in research.

Application process

Those interested should send a CV, and cover letter explaining why they are suited to the opportunity to the following email address. Applicants should seek approval from their

Training Programme Director prior to application and provide written confirmation of this approval at the time of application.

joseph.riddell2@wales.nhs.uk (deputy R&D lead)

Eligible applicants may be invited for an interview.

Current Studies

Study	Purpose of study
 An ICU Sedation Study	A2B To evaluate three different types of sedative medication that are commonly used for sedated and ventilated patients. Which is more effective at keeping patients calm and comfortable, reducing the amount of time on a ventilator and reducing incidence of complications like delirium. Standard care (Propofol and Alfentanil) Vs Dexmedetomidine Vs Clonidine
	AID-ICU To assess the benefits and harms of Haloperidol in patients with ICU acquired delirium.
	A-STOP To compare and assess the performance of three rapid tests for fungal infection. The emphasis will be on their ability to rule out infection. The results will be used to develop a protocol to guide antifungal drug prescribing.
	BLING III To evaluate if beta-lactam antibiotics (Tazocin and Meropenem) which are commonly used to treat sepsis, are more effective if they are given by 24 hour continuous infusion or by intermittent infusion 3-4 times a day.
	GenOMICC To identify genetic predisposition to specific syndromes of critical illness. To identify why some people are more susceptible to death following the onset of organ failure. To identify why some people diagnosed with Covid-19 required critical care and others did not.
	HEMOTION To evaluate if keeping haemoglobin levels above 100g/L or 70g/L is associated with better neurological outcomes for patients who have had a traumatic brain injury.
	ILTIS To examine WBC's and cytokines and see if they can be used to predict what type of infection is present in patients with sepsis or Covid-19. Medications will be added to the blood cells to see if the cells response to medication can be improved. This may lead to new targeted tests and treatments for sepsis.
	PHIND To rapidly identify phenotypes in patients with ARDS using a POC device and assess the patient's clinical outcomes based on identification of the phenotype.
	SCIL To evaluate the effectiveness of a drug called Kineret (recognised treatment for a number of anti-inflammatory conditions) in reducing the amount of inflammation and long term neurological symptoms experienced in patients who have had a SAH caused by an aneurysm.
	SOS To compare the effectiveness of hypertonic saline versus mannitol in patients with raised ICP following a TBI.
	TAME To compare and evaluate if targeted normocapnia or mild hypercapnia improves neurological outcome at 6 months in OOHCA patients.
	ALMITRINE To determine if administration of the drug almitrine bismesylate can improve hypoxaemia in patients with Covid-19 and enhance the effectiveness of supplementary oxygen therapy and respiratory support.
	ENLIST To assess if a panel of already routinely used core clinical biomarkers in conjunction with new biomarkers, can support clinical decision making and prognosis for patients with Covid-19.
	REMAP-CAP To evaluate the effectiveness of and identify a range of interventions to improve the outcome of patients with Covid-19.

3.2.4 Morriston Hospital Research SSY



College Tutor: Dr Scott Bradburn

SSY Lead: Dr Rowenna Morris-Clarke

Overview

This Research SSY would be of benefit to a trainee interested in critical care research. The trainee will learn basic research methodology and then build on that knowledge to play a leading role in existing trials and new trials on the ICU.

The trainee would work towards objectives outlined in the research section of the ICM curriculum, and experience in obtaining NHS permissions for research, insight into clinical trial design and management, research ethical considerations, methodology and how to manage and interpret data appropriately.

Time commitment/ location

Nominally 50% of the trainee's time will be spent undertaking research activities and 50% will involve senior clinical shifts on the general intensive care at Morriston Hospital. The time commitment will vary depending on the research demands of the unit.

Activities

The trainee would be expected to actively participate in our current studies on the unit, be involved in the setting up of new trials on the unit, they will also be supported in the pursuit of their own research ideas.

Examples of academic duties.

- Screen and recruit research participants including gaining informed consent and performing sampling
- Clinically assess research participants ensuring the optimal management
- Day to day responsibility for research participant safety and liaise with senior medical colleagues about the management and safety of research participants
- Assist with the co-ordination of the clinical research team's work
- Teaching: Provide clinical teaching to the other clinical research team members as required, including journal club
- The trainee will be able to experience taking a research study through from inception to implementation observing governance frameworks
- Actively contribute to submissions for grant funding as required
- Disseminate study findings in local and regional meetings
- Support the collection and analysis of clinical data.
- Attachment to a regional trials units during your rotation
- Appropriately analyses study results, along with peer-reviewed publications and gain experience in systematic review methodology
- opportunity to lead a study as a co-PI or associate PI
- attendance at local and national courses including Good Clinical Practice, Research Methods

Supervision

You would work closely with the ICM research team at Morriston Intensive care as well as our dedicated team of research nurses. The ICM faculty tutor will oversee ICM training whilst in Morriston.

Assessment

The suggested FICM SSY assessments for research are set out in their handbook and include:

- Completion of good clinical practice course
- Mock-up of research application for funding
- Mock-up of permissions application

- Logbook of formal training elements
- Viva organised by supervisor
- Presentation at a national research meeting
- Peer reviewed publication
- Project based Discussion – please FICM guidance for more detailed explanation

Application process/ who to contact for more information

For further information, or to apply for this SSY, please contact Dr Rowenna Morris-Clarke in Morryston ICU Rowenna.MorrisClarke@Wales.nhs.uk

3.3 QI

3.3.1 University Hospital of Wales

3.3.1 University Hospital of Wales

Quality Improvement SSY



College tutor: Dr Sonya Daniel

SSY lead: Dr James Williams

The Opportunity

UHW Critical Care will offer a supervised Special Skills Year for 1 trainee per academic year to join the team. Doctors in training will have the opportunity to gain experience in the practical application of principles underpinning quality improvement; Managing standard operating procedures and QI projects; data gathering and interpretation; change methodology; the principles and structure of local and national healthcare provision and management, including health economics, departmental budgeting, development and preparation of business plans; group dynamics including working effectively within the MDT; leadership and communication through providing supervision to members of the MDT, conducting and chairing meetings; and delivering effective teaching and training to medical and non-medical members of the healthcare team.

The program in UHW directly relates to the [SSY handbook](#). The requirements of section 11, which relates directly to quality improvement, can be achieved with relative ease during this placement. More importantly, we hope to impart a passion for quality improvement which will remain with successful applicants throughout their professional careers.

Time commitment and location

Doctors in training will be expected to protect 50% of their time to their Specials Skills Year activities. The opportunity is based in Cardiff, and the other 50% of their time will be spent providing clinical expertise to a large tertiary ICU.

Approval

Prior to applying for this opportunity, doctors in training will be expected to discuss with the Training Programme Director for their own Deanery.

Activities

It is expected that the trainee will engage with a wide range of activities during the year. These are likely to include most of the following elements:

- Formal training with the HEIW QIST training in QI theories, methodology, and practical application
- leadership role within an interdisciplinary team working to improve patient safety including chairing meetings
- Design, delivery and publication of one or more quality improvement projects
- Contribute to incident reporting and identify themes for quality improvement
- Writing, reviewing and managing Standard Operating Procedures
- Presentation of projects at departmental, specialist services and Health Board Quality & Safety meetings
- Attendance & presentation at a National Intensive Care Medicine or Quality Improvement Conferences
- Optimising dissemination of information
- Active involvement in weekly journal club meetings with critical appraisal of papers discussed

Supervision

Supervision will be provided by members of the Critical Care Quality Improvement/ Quality & Safety teams who will meet the supervision requirements set out in Section 13.5 of the SSY Handbook:

The lead supervisor will be:

- The lead of the critical care Quality Improvement team with experience in quality improvement methodology and implementation in a busy tertiary intensive care unit.

Assessment

Assessment is based on:

- Design, plan and delivery of a quality improvement project with a report on what changes have been implemented as a result of the project, how and to what effect
- QI logbook
- Senior review and feedback on QI activities
- Submission of an abstract to a conference
- Attendance at HEIW QIST training
- Achievement of the Learning Objectives for section 11 as set out in the SSY handbook

Eligibility

To be eligible to apply for this Special Skills year, the trainee must fulfil the following criteria:

1. Have a national training number in intensive care medicine as a single CCT
2. Have completed or are expected to complete stage 1 training
3. Be able to demonstrate an interest in Quality Improvement
4. Have written permission from the responsible Training Programme Director (or other responsible officer) confirming eligibility and support to undertake a special skills year in Quality Improvement.

Application process

Interested trainees should send a CV, and cover letter explaining why they are suited to the opportunity to the following email address. Applicants should seek approval from their Training Programme Director prior to application and provide written confirmation of this approval at the time of application.

James.p.williams@wales.nhs.uk (Quality Improvement Lead)

Eligible applicants may be invited for an interview.

External Non Clinical SSYs



THE UNIVERSITY
of EDINBURGH



ROYAL COLLEGE
of PHYSICIANS
of EDINBURGH

Distance learning Education SSY

Overview

The Education SSY is aimed at trainees wishing to pursue a career in medical education. It is offered by Edinburgh critical care online for up to 2 trainees across the UK per year.

Although based in Edinburgh, all teaching and meetings will be online so trainees can participate remotely whilst continuing to gain clinical experience in their local critical care unit. Time will be divided equally between clinical and educational activities.

Successful applicants will become part of the Edinburgh Critical Care MSc teaching team for the duration of the SSY, and will be expected to perform a variety of educational activities such as delivering online lectures, leading a postgraduate course and acting as a personal tutor.

More information about the programme can be found in the online handbook [here](#).

Interested trainees should discuss this opportunity with the training programme director, Dr Bethan Gibson (Bethan.Gibson@wales.nhs.uk).

Appendix

SSY's by hospital

Hospital	Echo	Transfer	Education	Education remote	Research	QI
Glangwili Hospital		✓		✓		
Morrison Hospital	✓	✓	✓	✓	✓	
Prince Charles Hospital		✓	✓	✓		
Royal Glamorgan		✓		✓	✓	
The Grange		✓	✓	✓	✓	
University Hospital of Wales	✓	✓	✓ *	✓	✓	✓
Ysbyty Glan Clwyd		✓		✓		
Ysbyty Gwynedd	✓	✓		✓		

* Simulation