



a healthier world through  
**sonographer expertise**

# Sonography Clinical Supervision Framework

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## Executive Summary

The Clinical Supervision Framework for Sonographers in Australia and New Zealand standardises supervision practices, providing practical guidance for high-quality training and professional development for trainee sonographers. This framework seeks to ensure consistency and high-quality guidance across various healthcare settings, fostering a culture of excellence in clinical supervision. Key objectives include establishing consistent practices, continuous professional growth and improved patient outcomes by ensuring trainees are well-prepared to provide safe, effective, and compassionate care. The framework emphasises principles such as commitment to effective supervision, patient-centred care, cultural competence and cultural safety, ethical conduct, professional development, collaborative learning, reflective practice, evidence-based practice, accountability, and innovation.

While there is an expectation that all sonographers participate in clinical supervision, it is recognised that it requires additional skills, training and knowledge to engage effectively. Clinical supervisors, often in advanced or extended scope of practice roles, need adequate supervision skills to support the professional development and competency of sonographers. This, in turn, enhances patient experience and improves patient safety and care.

The framework applies to all healthcare settings involved in sonographer training, including new areas of practice, peer-to-peer supervision, return to practice after extended leave, and mandated supervision. It defines roles for workplaces, supervisors, trainees, and educational course providers supporting various models of supervision, including one-to-one, group, peer, and remote supervision, to accommodate different learning styles and settings.

Aligning with the Australian Professional Competency Framework for Sonographers, the Australasian Sonographers Association Code of Conduct and the New Zealand Medical Radiation Technologists Board Competency Standards, the framework emphasises the importance of informed consent, documentation, and adherence to legal and ethical guidelines to protect patient safety and uphold professional standards. Additionally, it promotes the wellbeing of supervisors and trainees by supporting emotional and mental health, work-life balance, physical health, and a positive work environment.

To support the implementation of the framework, clinical supervisors should be provided with training programs and resources to equip them with the necessary skills and knowledge. Regular reviews and evaluations of the supervision process should be conducted to ensure alignment with the framework's standards and ensure continuous improvement. The framework also advocates for the accreditation of supervisors and training sites to maintain high standards of supervision and training quality. Voluntary accreditation may improve ultrasound training standards, providing suitable role models and recognised accredited sites. By implementing this framework, healthcare settings can ensure that trainee sonographers receive the guidance and support they need to develop into competent professionals, ultimately leading to improved patient care and safety.

## Acknowledgements / Working Group

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## Definitions

|                                  |   |
|----------------------------------|---|
| <b>Advanced stage trainee</b>    | A trainee that has working knowledge and is able to perform straightforward tasks with some supervision. <sup>1</sup>   |
| <b>Adult learning principles</b> | Theories and practices that focus on how adults learn, emphasising self-direction, experiential and practical learning. <sup>2</sup>  |
| <b>Clinical reasoning</b>        | The process by which healthcare professionals gather and analyse patient information, evaluate its relevance, and make informed decisions about patient care. <sup>3</sup>  |
| <b>Clinical supervision</b>      | An advanced practice that involves guiding trainee sonographers, requiring specialised skills and knowledge to ensure high standards of patient care and professional development.  |
| <b>Clinical supervisor</b>       | <p>A clinical supervisor, also known as a tutor, is a professional who guides sonographer education and training. Clinical supervisors may include experienced sonographers or doctors, ensuring comprehensive oversight and support for trainees. The clinical supervisor's role may encompass educational, support and managerial functions. The clinical supervisor is responsible for ensuring safe, appropriate, and high-quality patient care.</p> <p>A clinical supervisor must be either an Accredited Medical Sonographer recognised by the ASAR or registered with the Medical Radiation Technologist Board (MRTB) and hold a current Annual Practising Certification in New Zealand.</p> |

|                               |   |
|-------------------------------|---|
| <b>Competency</b>             | A competency is a set of defined behaviours that provides a structured guide to the identification, evaluation and development of skills and knowledge in individual workers. A person is deemed competent when they have acquired sufficient competencies to perform the work required of them to an acceptable and agreed standard. <sup>4</sup>  |
| <b>Cultural competency</b>    | The ability to understand, communicate with and effectively interact with people from diverse cultural backgrounds. <sup>4,5</sup>  |
| <b>Cultural safety</b>        | An ongoing process that involves creating an environment where patients feel secure and respected in their cultural identities. <sup>6</sup> It involves understanding and respecting the diverse cultural backgrounds of patients, including their beliefs, values, and practices. Cultural safety actively addressing power imbalances and ensuring that sonographic care is provided in a non-judgmental, non-discriminatory, and equitable manner. <sup>6</sup> It involves continuous self-reflection and education to provide inclusive and respectful care that improves patient outcomes and fosters trust. |
| <b>Educational psychology</b> | A branch of psychology that studies how people learn and retain information. <sup>7</sup> It focuses on the learning processes of individuals, particularly in educational settings, and examines factors such as cognitive development, teaching methods, and assessment of learning outcomes. <sup>7</sup> It aims to understand and improve learning environments and educational outcomes. <sup>7</sup>   |

## Definitions

|                               |   |  |
|-------------------------------|---|--|
| <b>Emotional intelligence</b> | The capacity to be aware of, control and express one's emotions, and to handle interpersonal relationships thoughtfully and empathetically. <sup>8,9</sup> This skill includes the ability to read the room, accurately perceiving the emotional dynamics at lay, and responding appropriately to the emotions of others. <sup>8,9</sup> Emotional intelligence encompasses self-regulation, empathy, social skills, and the ability to navigate complex social interactions with sensitivity and insight. <sup>8,9</sup> | development, and helps manage the emotional and psychological demands of the profession.   |
| <b>Formative assessment</b>   | Ongoing assessments used to monitor trainee learning and provide continuous feedback to improve their skills and knowledge. <sup>10</sup>   | <b>Preceptorship</b>   |
| <b>Learning plan</b>          | A document that is used to plan and facilitate learning of an individual or group, usually over an extended period. <sup>10</sup>   | A structured period of transition for newly qualified sonographer or trainees, where they are assigned to an experienced practitioner/ sonographer (the preceptor) who provides practical training, supervision, and support. <sup>12</sup> The aim is to help the preceptee integrate into their professional role and develop the necessary competencies for independent practice. <sup>12</sup> |
| <b>Learning style</b>         | Various approaches or ways of learning, including visual, auditory, kinaesthetic that trainees may prefer. <sup>10</sup>  | <b>Professional peer support</b>   |
| <b>Mentoring</b>              | A developmental partnership where a more experienced or knowledgeable person (the mentor) provides guidance, support, and advice to a less experienced or knowledgeable person (the mentee). <sup>11</sup> The focus is on the mentee's personal and professional growth, helping them navigate their career path and develop their skills. <sup>12</sup>   | Professional peer support is the mechanism for practicing professional sonographers to be able to discuss and share reflection on clinical situations, professional development and discuss emotional experiences in a safe and confidential environment with a suitable peer or mentor. <sup>11</sup>   |
| <b>Novice trainee</b>         | A trainee that has minimal knowledge and requires close supervision. <sup>1</sup>   | <b>Reflective practice</b>   |
| <b>Peer to peer support</b>   | A reciprocal relationship between sonographers at similar levels of experience and expertise, where they provide each other with support, feedback, and shared learning opportunities. <sup>13</sup> This type of support fosters a collaborative environment, enhances professional  | A process where trainees and supervisors critically analyse their actions and experiences to improve future practice. <sup>14</sup>  |
|                               |   | <b>SMART goals</b>   |
|                               |   | Specific, Measurable, Achievable, Realistic, and Timely objectives set to guide and assess trainee progress. <sup>2</sup>  |
|                               |   | <b>Summative assessment</b>  |
|                               |   | A formal evaluation at the end of a training period used to measure the trainee's overall learning and competency. <sup>10</sup>   |
|                               |   | <b>Supervision agreement</b>   |
|                               |   | A formal or informal contract outlining the expectations, goals, and responsibilities of both the supervisor and the trainee. <sup>14</sup>  |
|                               |   | <b>Trainee</b>   |
|                               |   | A trainee or student sonographer on the Australian Sonographer Accreditation Registry (ASAR) register or trainee sonographer on the New Zealand Medical Radiation Technologists Board (NZMRTB) register.   |

## Background

Sonographers are critical to quality healthcare, and effective clinical supervision is essential for training competent professionals. Enhanced supervision practices lead to improved patient experiences and safety, as trainees are better equipped to handle complex clinical situations.<sup>2,11,15-18</sup> Feedback indicates inconsistent supervision quality, including varying supervisor engagement, feedback standards, and supervision training. This inconsistency sometimes fails to meet trainee needs and highlights the lack of evidence-based practices.

The implications of poor supervision are significant. Inadequate supervision can lead to negative patient experiences, suboptimal diagnostic outcomes, and higher healthcare costs.<sup>15,17,19-23</sup> Common barriers include lack of protected time and insufficient resources.<sup>24</sup> There is a wide variation in supervision practices and this inconsistency can lead to confusion and hinder the professional development of trainees.

Effective supervision requires clear communication and constructive feedback;<sup>11,23,25,26</sup> however, poor communication and infrequent feedback can negatively impact trainee performance and confidence.<sup>15</sup> Inadequate supervision may increase trainee failure rates, hinder skill development, and lead to suboptimal diagnostic outcomes.<sup>2,11,15,16,27,28</sup> Trainees who lack adequate support are more likely to experience stress and burnout, decreasing job satisfaction and increasing turnover.<sup>2,15,16,20-23</sup> The costs of poor supervision include trainee attrition, additional training, and potential legal liabilities.<sup>29</sup>

Clinical supervision is an advanced practice, requiring deep clinical understanding, instructional expertise, communication skills, and the ability to guide trainees effectively.<sup>28,30</sup> This extended scope of practice ensures that trainees receive high-quality supervision, fostering their professional growth and enabled an enhanced patient experience.<sup>15,21,22,31-34</sup>

The ASA's 2024 career framework survey<sup>35</sup> found that approximately 34% of sonographers spend half or more of their working week providing direct clinical supervision,<sup>26</sup> while 44% receive no formal role recognition and only 16% receive additional remuneration.<sup>35</sup> In a profession with a recognised critical workforce shortage, effective and efficient supervision and training of trainees is essential.<sup>2,25,36</sup> Australian<sup>37</sup> and New Zealand<sup>38</sup> accreditation recommends a minimum of 2000 supervised clinical hours, minimum competency standards, and graduation from an accredited course, placing a burden and cost on trainees, supervisors, and clinical sites.

While comprehensive frameworks for allied health professionals,<sup>2,39-42</sup> radiographers,<sup>16</sup> nurses and midwives,<sup>40,42</sup> general practitioners,<sup>43</sup> psychologists,<sup>15,16</sup> and occupational therapists,<sup>44,45</sup> are available, an evidence-based and comprehensive model for sonographers is still lacking. A structured framework is recommended to improve access and effectiveness of supervision by providing practical guidance and increased consistency.<sup>11,19</sup> A framework also ensures that skills for effective supervision are recognised, appreciated, and implemented. The Sonography Clinical Supervision Framework guides clinical supervision of trainee sonographers in Australia and New Zealand, built on principles ensuring high-quality supervision, professional development, enhanced patient experience, and a culture of excellence.<sup>15,21,22,31-34</sup> It also recognises the skills, knowledge, and attributes supervisors should possess. The framework provides guidance for stakeholders, support for supervisors and trainees, and promotes a high standard of practice to enhance patient care.

The ASA acknowledges that supervision takes many forms and settings, including peer-to-peer, preceptorship, and mentoring, each, offering unique benefits and addressing different aspects of learning and growth. Peer-to-peer supervision fosters a collaborative learning environment where colleagues can share knowledge and experiences, enhancing their skills through mutual support.<sup>13</sup> Preceptorship provides structured guidance from experienced practitioners, ensuring that sonographers receive hands-on training and direct feedback in a clinical setting.<sup>12</sup> Mentoring, on the other hand, offers long-term professional support and career development, helping mentees navigate their career paths and achieve their professional goals.<sup>11</sup> Despite diverse methods, effective supervision principles remain consistent: fostering a supportive environment, providing constructive feedback, and tailoring supervision to individual needs. Effective clinical supervision begins with a workplace that values and supports its importance by providing the time, resources, and training for supervisors.<sup>10</sup> High quality teaching and training needs to be an ongoing investment to produce skilled sonographers.

This framework mainly applies to pre-accreditation supervision settings, where the focus is on preparing trainees to meet the required competency standards for professional accreditation. By adhering to these principles, we can ensure that all forms of supervision contribute to the development of competent and confident sonographers who are well-equipped to deliver high-quality patient care.

## Professional drivers behind the clinical supervision framework

### ASA Code of Conduct

The ASA Code of Conduct (March 2022)<sup>46</sup> emphasises the importance of teaching, supervising, and mentoring early career and trainee sonographer for their development and patient care.

Key points include:

**Appropriate supervision:** Early career and trainee sonographers should receive adequate oversight and feedback, reflecting their ability, competence, and learning requirements.<sup>46</sup>

**Respect and patience:** Trainees should be treated with respect and patience to foster a supportive learning environment.<sup>46</sup>

### Australian Professional Competency Framework

The Australian Professional Competency Framework for Sonographers (2021)<sup>1</sup> outlines professional behaviours all sonographers should demonstrate to practise safely and ethically.

According to the standards:

**Continuing professional development:** Sonographers must actively engage in continuing professional development.<sup>1</sup>

**Appropriate supervision:** Trainee sonographers should be appropriately supervised and provided with constructive and timely feedback.<sup>1</sup>

**Constant supervision for trainees:** Novice (student) sonographers require constant supervision, clear instruction, and defined protocols due to their lack of developed intuitive responses.<sup>1</sup>

### Australian Commission on Safety and Quality in Health Care

The ACSQHC has developed National Safety and Quality Health Service (NSQHS) Standards to provide a nationally consistent statement of the level of care consumers can expect from health service organisations.<sup>26</sup>

The ACSQHC states:

**Continuing education:** Workforce members should attend continuing education and skill enhancement programs.<sup>26</sup>

**Purpose of supervision:** Supervision ensures that the practise of less experienced clinicians is of an acceptable standard and identifies opportunities for learning and development.<sup>26</sup> Effective clinical supervision enables health professionals to practise effectively and enhance patient safety.<sup>26</sup>

**Development of clinician capabilities:** The key goal of supervision is to safely develop a clinician's capabilities.

### New Zealand Medical Radiation Technologists Board

The New Zealand Medical Radiation Technologists Board (MRTB) has developed a Supervision Policy (2024) and states "Appropriate supervision provides assurance to the Board and the New Zealand public that a registered practitioner's practice is safe and does not pose a risk of harm to the public."<sup>47</sup>



## Framework development

The development of the Sonography Clinical Supervision Framework was a comprehensive and collaborative process, involving multiple stages and contributions from various stakeholders. The key steps in the development process included:

|                                    |  |
|------------------------------------|--|
| <b>Literature review</b>           | Conducted a thorough review of existing clinical supervision frameworks for allied health professionals, identifying best practices and gaps specific to sonography.   |
| <b>Stakeholder consultation</b>    | Sought input from a wide range of stakeholders, including experienced sonographers, educators, healthcare managers, and professional bodies in Australia and New Zealand through semi-structured interviews to gather insights and feedback. |
| <b>Working group formation</b>     | Established a dedicated working group comprising experts in sonography, clinical education, and professional development to draft the framework, ensuring it was evidence-based and aligned with professional standards.                     |
| <b>Drafting and iteration</b>      | Created initial drafts and iteratively refined them based on feedback from the working group, members, and stakeholders to ensure practicality and comprehensiveness.  |
| <b>Final review and approval</b>   | The final version was reviewed and approved by the board of the Australasian Sonographers Association (ASA) after extensive consultation, ensuring it met the highest standards of professional practice.                                    |
| <b>Implementation and training</b> | Developed training programs and resources to equip clinical supervisors with the necessary skills and knowledge to effectively apply the framework in their practice.  |

## Scope and application

This framework is applicable to all healthcare workplaces and educational course providers involved in the training and professional development, ensuring consistent and effective guidance throughout their training.

Supervisors who may include experience sonographers or in some cases doctors, operate in various healthcare settings. The framework outlines the necessary attributes and skills needed across all areas of supervision and supports the wellbeing of both supervisors and trainees.



## Foundations of effective supervision

Effective clinical supervision is built on three main functions, and each play a role in the development and wellbeing of trainee sonographers. The three functions can be categorised into: educational (formative), supportive (restorative) and administrative (normative).<sup>15,20,22,25,49,51-53</sup> While the main function of supervision is to oversee the provision of practical training, supervision can also provide a support system to help trainees deal with pressures they may face in the workplace.<sup>22</sup>

### Educational (formative) function:

**Purpose:** Develop ultrasound skills through structures and interactive learning.

#### Examples:

- Supervisors provide hands-on training and practical demonstrations.
- Discuss clinical processes and evidence-based practices to enhance trainees' knowledge and skills.<sup>22,49</sup>

### Supportive (restorative) function:

**Purpose:** Address work satisfaction, emotional well-being, and professional support.<sup>11,15,49,54,55</sup>

#### Examples:

- Help trainees manage the emotional and psychological demands of their roles.
- Regular check-ins to discuss any challenges and provide encouragement.

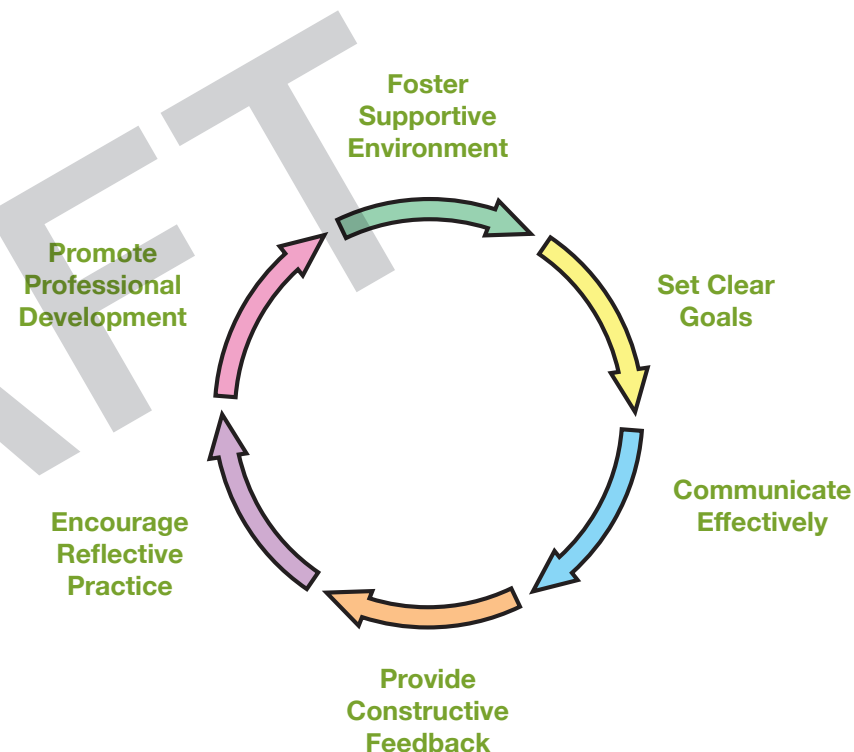
### Administrative (normative) function:

**Purpose:** Promote high standards of work, accurate documentation, ethical practice, accountability, and adherence to policies.<sup>15,22,25,49,55,56</sup>

#### Examples:

- Supervisors ensure that trainees follow established protocols and maintain accurate records.
- Conduct regular performance evaluations to monitor progress and ensure compliance with professional standards.

### Cycle of Effective Supervision



## Supervision stratification by expertise

### Organisational supervisors

**Description:** Senior-level supervisors with extensive experience in clinical practice and management.

**Characteristics:** Responsible for overseeing the entire supervision framework within the workplace. They ensure compliance with standards, provide strategic direction, and support other supervisors.

**Qualifications/Experience:** Typically hold advanced degrees and have significant experience in clinical supervision and management roles.

**Examples:** Heads of departments, senior managers, and clinical directors.

### Educator

**Description:** Supervisors who manage educational programs and provide direct supervision to trainees.

**Characteristics:** Focus on developing and implementing training programs, mentoring trainees, and ensuring educational standards are met. They provide both administrative and clinical support.

**Qualifications/Experience:** Often have formal education in teaching or training, such as a Certificate IV in Training and Assessment, and several years of clinical experience.

**Examples:** Education managers, clinical tutors, clinical educators, and training coordinators.

### Experienced supervisors

**Description:** Supervisors with substantial clinical experience who provide direct supervision and mentorship to trainees.

**Characteristics:** Offer hands-on training, feedback, and support to trainees. They play a crucial role in developing the clinical skills of trainees.

**Qualifications/Experience:** Typically have several years of clinical practice and may hold additional qualifications in supervision or education.

**Examples:** Senior sonographers and lead sonographers.

### Newly qualified sonographers

**Description:** Recently qualified sonographers who are beginning to take on supervisory roles.

**Characteristics:** Provide peer support and basic supervision under the guidance of more experienced supervisors. They help with routine tasks and offer insights from their recent training experiences.

**Qualifications/Experience:** Newly accredited sonographers with fresh knowledge of current practices and protocols.

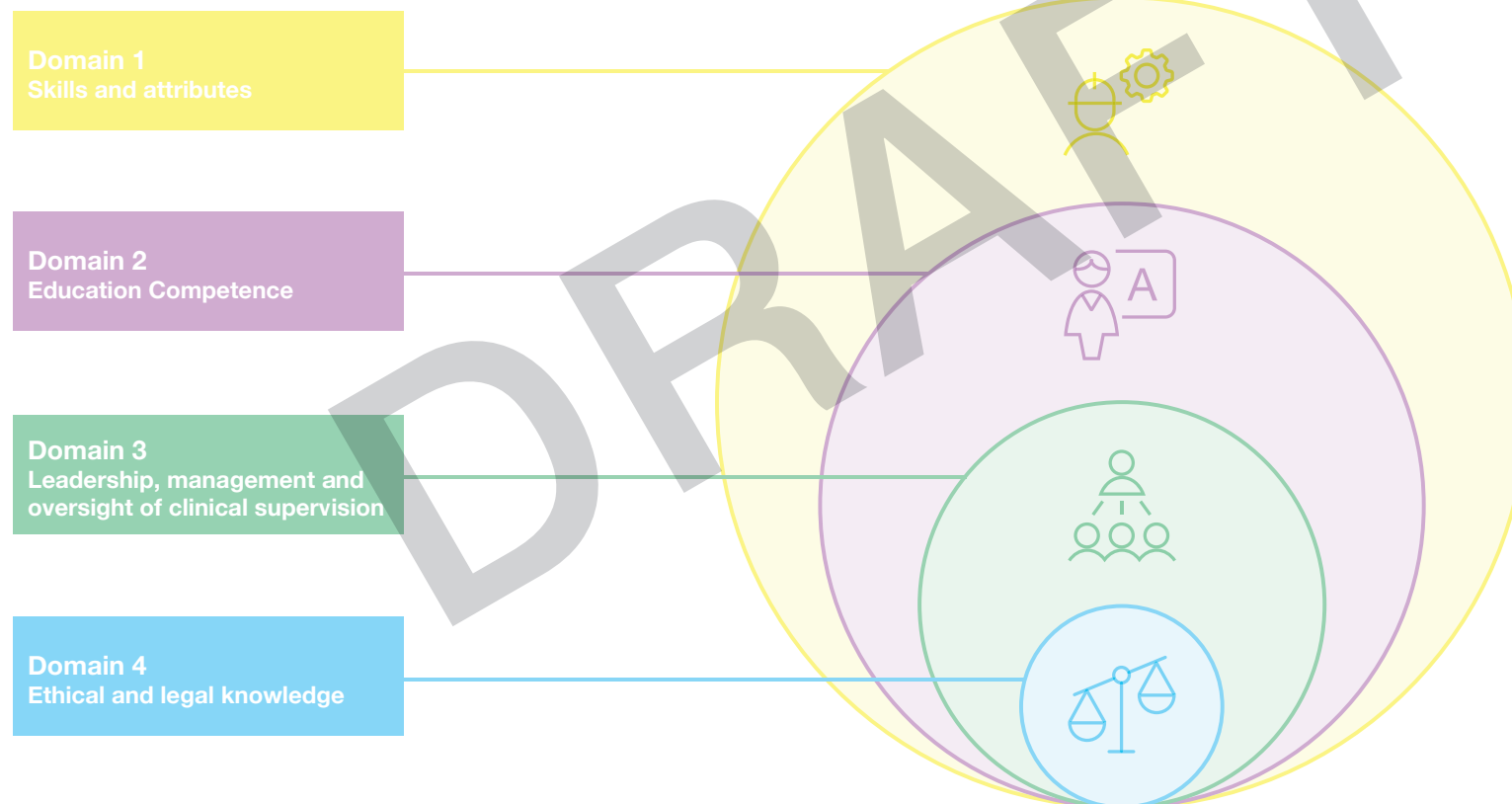
**Examples:** Junior sonographers, recent graduates, and early-career professionals.

## Domains of clinical supervision framework

The framework is structured into four key domains to ensure comprehensive and effective clinical supervision. Together, these domains

provide a holistic approach to clinical supervision, supporting the professional development of trainees and enhancing patient care.

### Clinical Supervision Practice Domains





### Domain 1 Skills and attributes

Focuses on building rapport, active listening, knowledge sharing, and effective supervision to foster a collaborative and supportive environment.

- 1.1 Building rapport
- 1.2 Empathy and patience
- 1.3 Cultural competence and safety
- 1.4 Active listening
- 1.5 Communication
- 1.6 Effective writing
- 1.7 Documentation
- 1.8 Knowledge sharing
- 1.9 Teamwork
- 1.10 Promote a supervision culture
- 1.11 Role modelling
- 1.12 Wellbeing of supervisors and trainees
- 1.13 Organisation skills
- 1.14 Digital literacy



### Domain 2 Education Competence

Emphasises structured skill development, tailored learning plans, and regular assessments to enhance trainee motivation and professional growth.

- 2.1 Clinical competence
- 2.2 Teaching
- 2.3 Mentoring
- 2.4 Training programs
- 2.5 Skill development / scaffolded learning
- 2.6 Supportive learning environment
- 2.7 Facilitative learning
- 2.8 Proximity for supervision
- 2.9 Competency review, assessment and feedback
- 2.10 Managing clinical underperformance
- 2.11 Educational psychology



### Domain 3 Leadership, management and oversight of clinical supervision

Highlights the need for strong leadership, conflict resolution, and informed decision-making to create a cohesive and productive learning environment.

- 3.1 Leadership role of a clinical supervisor
- 3.2 Conflict and relationship management
- 3.3 Decision-making



### Domain 4 Ethical and legal knowledge

Underscores maintaining a safe and supportive training environment, adhering to ethical practices, and ensuring legal compliance to foster integrity and accountability.

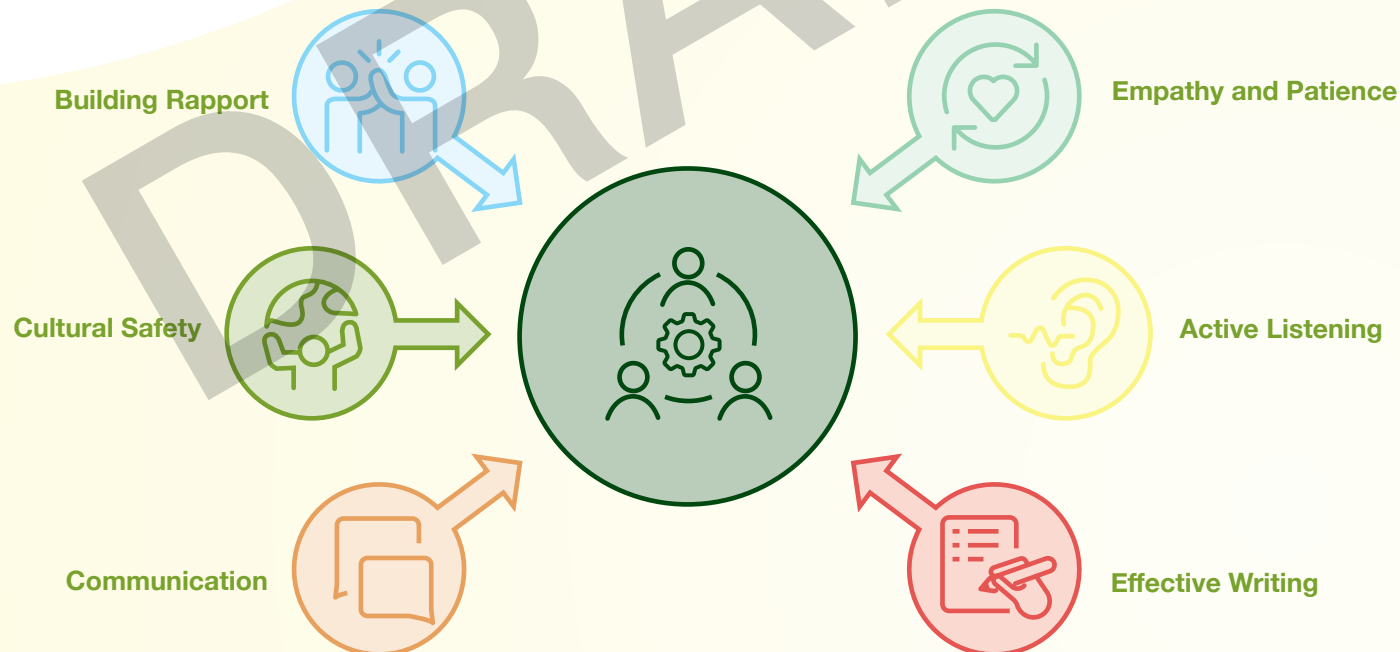
- 4.1 Safe work environment
- 4.2 Ethical practices
- 4.3 Legal responsibilities
- 4.4 Policy, procedural and protocol requirements

## Domain 1 - Skills and attributes

Domain one emphasises that clinical supervision extends beyond the teaching of skills; it involves considerable time and energy to supervise well.<sup>10</sup> A good supervisor is professionally committed to the progress of their trainees and shows concern for their trainees’ wellbeing. Effective clinical supervision is built on a foundation of essential skills and attributes that go beyond technical expertise. Domain one highlights the importance of fostering positive relationships, demonstrating empathy and patience, and ensuring cultural competence and safety in all interactions. Supervisors must develop strong active listening and communication skills to understand and respond to the needs of trainees effectively. Clear and concise written communication, along with accurate documentation, is crucial for

maintaining continuity of care and legal compliance. Knowledge sharing and teamwork are vital for creating a collaborative learning environment, while promoting a culture that values supervision ensures consistent and high-quality training. Role modelling professional behaviours, supporting the wellbeing of both supervisors and trainees, and balancing clinical responsibilities with supervision duties are key to successful supervision. Additionally, proficiency in digital literacy is essential for managing clinical systems and electronic health records. By embodying these attributes, supervisors can provide comprehensive and effective supervision that supports the professional growth of trainees and enhances patient care.

### Key Attitudes and Skills for Effective Supervision



- 1.1 **Foster positive relationships by being professional, approachable, and supportive.**
- 1.2 **Demonstrate understanding and patience in all interactions to support trainee development.**
- 1.3 **Provide inclusive education and model culturally sensitive practices during patient interactions.**
- 1.4 **Develop strong active listening skills to fully understand and respond to the needs of trainees and colleagues.**
- 1.5 **Encourage open, effective, and responsive communication within the work culture.**
- 1.6 **Ensure written communication is clear, concise, and well-organised.**
- 1.7 **Maintain accurate and thorough documentation for continuity of care and legal compliance.**
- 1.8 **Foster a collaborative learning environment by willingly sharing knowledge, skills, and experiences.**
- 1.9 **Promote teamwork by encouraging collaboration and valuing each team member's contributions.**
- 1.10 **Advocate for a culture that values and prioritises clinical supervision within the organisation.**
- 1.11 **Set a positive example for trainees by demonstrating professional behaviours and clinical skills.**
- 1.12 **Foster a supportive and respectful environment to ensure the wellbeing of both supervisors and trainees.**
- 1.13 **Balance clinical responsibilities with supervision duties to ensure effective patient care and trainee development.**
- 1.14 **Demonstrate proficiency in digital literacy to manage clinical systems and electronic health records effectively.**



### 1.1 Building rapport

- Be professional, approachable, friendly, and supportive to foster positive relationships.<sup>57,58</sup>
- Recognise the experience and contributions of adult learners.<sup>2</sup>
- Strong interpersonal skills are essential to create a positive learning environment.<sup>48</sup>

### 1.2 Empathy and patience

- Show empathy in all interactions, demonstrating an understanding of others’
- Provide emotional support and understanding to trainees, especially during the early stages of training.<sup>2,57,59</sup>
- Be patient with the learning process and encourage perseverance.<sup>48</sup>

### 1.3 Cultural competence and safety

- Engage with a diverse range of trainees and apply cultural competency and safety skills to provide inclusive education.<sup>59-61</sup>
- Foster culturally sensitive practices during patient interactions by engaging in open dialogue about cultural differences and their potential impact on ultrasound examinations.

### 1.4 Active listening

- Develop strong active listening skills to fully understand and respond to the needs and concerns of trainees, colleagues, patients, and carers.<sup>57,58,62</sup>

### 1.5 Communication

- Foster a work culture that encourages open, effective, and responsive communication.<sup>60</sup>
- Create an atmosphere in which the trainee feels comfortable discussing their concerns.<sup>60</sup>
- Be aware of non-verbal communication, such as body language, facial expressions, and tone of voice.<sup>61,62</sup> These cues can significantly impact how messages are received and interpreted.
- Establish regular patterns of communication to share ideas and information quickly and easily.<sup>60</sup>

- Communicate expectations and goals clearly and assertively, avoiding jargon and using simple, direct language.<sup>2,16,62</sup>
- Provide opportunities for questions and feedback to enable effective two-way communication.<sup>60</sup>

#### At a minimum, frequency of communication novice stage:

- **Daily:** Quick, informal check-ins to address any immediate concerns or questions.
- **Weekly:** Schedule regular meetings to discuss progress, provide feedback and set goals. Use written updates, such as email, to summarise key points from meetings or provide additional resources and information.
- **Monthly:** Conduct formal reviews provide more comprehensive discussions to evaluate performance, review clinical cases, and plan for the upcoming month. Include written feedback to provide detailed areas for improvement.
- **Quarterly:** Conduct formal performance assessments to evaluate overall progress and set long-term goals.

#### At a minimum, frequency of communication advanced stage:

- **Fortnightly:** The supervisor should, at a minimum, conduct a fortnightly review of the trainee’s practice.

### 1.6 Effective writing

- Ensure that written communication is clear, concise, and well-organised.<sup>59</sup>

### 1.7 Documentation

- Maintain accurate and thorough documentation of all interactions, and feedback for continuity of care and legal compliance. If areas of weakness are identified, mutually agreed plans should be implemented that outlines how concerns will be addressed and timelines for resolution.<sup>28</sup> Frequency and duration of progress meetings should be documented.

### 1.8 Knowledge sharing

- Demonstrate a willingness to share knowledge, skills, and experiences to foster a collaborative learning environment.<sup>63</sup>

### 1.9 Teamwork

- Promote teamwork by encouraging collaboration and open communication among team members. Recognise and value the contributions of each team member.

### 1.10 Promote a supervision culture

- Promote a culture that values and prioritises clinical supervision within the organisation.<sup>15,25</sup>
- Conduct regular evaluations of both the supervisor and the supervision process to maintain quality and efficiency.<sup>59,63,64</sup> Evaluations should occur, at a minimum, every three months for novice trainees and every six months for advanced stage.

### 1.11 Role modelling

- Role model professional behaviours, clinical skills, and patient interactions to set a positive example for trainees.<sup>12,25,34,48,57–59</sup>

### 1.12 Wellbeing of supervisors and trainees

- Recognise the emotional demands of clinical supervision and provide support to both supervisors and trainees.<sup>11</sup> Encourage open communication about stress, burnout, and emotional challenges, and offer resources such as counselling services and peer support networks.<sup>2,15,16,20–23</sup>
- Foster a culture of mental health awareness by providing training on recognising signs of stress, anxiety, and burnout.
- Promote a healthy work-life balance by ensuring that supervisors and trainees have manageable workloads and adequate time for rest and personal activities.<sup>65</sup>
- Support the physical health of supervisors and trainees by promoting ergonomic practices, encouraging regular physical activity, and providing access to health and wellness programs.
- Ensure that the work environment is safe and conducive to physical well-being.

- Enhance the wellbeing of supervisors and trainees by supporting their professional growth and development.<sup>59</sup> Provide opportunities for continuing education, skill development, and career advancement.<sup>2,16,21</sup>
- Create a positive and supportive work environment that fosters collaboration, respect, and mutual support.
- Regularly provide constructive feedback and recognise the achievements of both supervisors and trainees.

### 1.13 Organisational skills

- Balance clinical responsibilities with supervision duties to ensure both patient care and trainee development are not compromised.
- Keep track of trainees' progress and ensure they meet their learning objectives.<sup>34,48</sup>
- Manage documentation and assessments efficiently.<sup>2,59</sup>

### 1.14 Digital literacy

- Demonstrate good digital literacy skills to manage various systems used in clinical settings such as PACS (picture archiving

## Key insights for Domain 1 - Skills and attributes

Effective clinical supervision hinges on the supervisor's ability to build rapport, actively listen, share knowledge, and model professional behaviours. Building rapport involves creating a trusting and respectful relationship with trainees, which encourages open communication and a positive learning environment. Active listening is crucial for understanding trainees' concerns, providing appropriate feedback, and addressing any issues that may arise. Sharing knowledge involves not only imparting clinical skills and expertise but also encouraging critical thinking and problem-solving abilities.

Modelling professional behaviours sets a standard for trainees to emulate. By fostering a supportive environment, supervisors can create a safe space for trainees to ask questions, make mistakes, and learn from their experiences. Culturally competent supervision ensures that the diverse backgrounds and needs of trainees and patients are respected and addressed, promoting inclusivity and equity in the workplace.

Supervisors who prioritise these elements can significantly enhance trainee development, ensuring that they acquire the necessary skills and confidence to provide high-quality patient care. This approach also promotes a positive learning culture within the workplace, where continuous improvement, collaboration, and mutual respect are valued. Ultimately, effective clinical supervision not only benefits trainees but also contributes to better patient outcomes and a more cohesive and supportive healthcare team.

## Domain 2 - Educational competence

Domain two emphasises the critical role of educational competence in clinical supervision, highlighting the need for supervisors to possess a deep and broad knowledge of ultrasound techniques and protocols. Effective supervision requires a structured approach to skill development, ensuring a logical progression from basic to advanced competencies. Supervisors must design comprehensive learning plans tailored to the needs of each trainee, fostering a supportive and non-judgmental learning environment. Facilitative learning, rather than directive teaching, encourages trainees to connect theory with practice, promoting

innovation and creativity in teaching methods. Regular assessments and constructive feedback are essential for monitoring trainee progress and addressing any areas of underperformance promptly. By applying principles of educational psychology, supervisors can enhance trainee motivation and engagement, ultimately supporting their professional growth and ensuring high standards of patient care. This domain underscores the importance of a well-rounded educational approach that integrates clinical competence, effective teaching, and continuous professional development.

### Domain 2 - Educational Competencies



- 2.1 **Supervisors must possess deep and broad knowledge of ultrasound techniques and protocols, staying updated with advancements.**
- 2.2 **Supervisors should have a passion for teaching and be knowledgeable of adult learning principles.**
- 2.3 **Combine teaching and mentoring to support the clinical and professional development of trainees.**
- 2.4 **Design and develop comprehensive learning plans and agreements tailored to the needs of each trainee.**
- 2.5 **Follow a structured approach to skill development, ensuring a logical progression from basic to advanced competencies.**
- 2.6 **Foster a non-judgmental and open-minded attitude towards different learning styles and approaches.**
- 2.7 **Facilitate rather than direct trainee learning, using innovative and creative teaching methods.**
- 2.8 **Ensure supervisors are located onsite and/or remote if policy and competency allow, to provide adequate supervision and timely guidance.**
- 2.9 **Conduct regular assessments to document and evaluate trainee progress, providing both formative and summative feedback.**
- 2.10 **Identify areas for improvement early and address underperformance issues promptly with support and monitoring.**
- 2.11 **Apply principles of educational psychology to understand and enhance the motivation of trainees.**

### 2.1 Clinical competence

- Supervisors must possess deep and broad knowledge of ultrasound techniques and protocols, stay updated with advancements, and continuously improve their clinical skills.<sup>2,16,59,63</sup>
- Supervisors should be familiar with the 2021 Professional Competency Framework for Sonographers,<sup>1</sup> the 2022 ASA Code of Conduct,<sup>46</sup> or the NZ MRTB 2024 Competency Standards<sup>66</sup> to ensure they meet the required standards of practice. These frameworks outline the essential skills, knowledge, and attitudes required for effective performance at various stages of sonographic practice.
- Supervisors should be confident in their skills and knowledge to effectively teach and guide trainees.<sup>2,58</sup>

### 2.2 Teaching

- Supervisors should have a passion and enthusiasm for teaching.<sup>58</sup>
- While formal qualifications and credentialing in teaching and supervision are not mandatory, they can significantly enhance a supervisor's effectiveness.
- Supervisors may benefit from pursuing voluntary qualifications, such as courses in adult learning principles, training and assessment, or other relevant credentials. These qualifications demonstrate a commitment to effective supervision and can provide valuable skills and knowledge to support trainee development. See [Appendix 1](#) suggested qualifications.

### 2.3 Mentoring

- Combine teaching and mentoring to support the clinical and professional development of trainees, providing guidance, sharing knowledge, and offering constructive feedback.<sup>14</sup>

### 2.4 Training programs

- Design and develop comprehensive learning plans, programs, and agreements tailored to the needs of each trainee, outlining clear objectives, milestones, and assessment criteria.<sup>67,68</sup>
- Establish and document a formal agreement prior to commencement of training outlining the terms and expectations of the supervisory relationship, including conflict resolution.<sup>20,22,60,69</sup>
- [Appendix 2 template learning plan](#) and [Appendix 3 template learning agreement](#) demonstrates examples of a learning plan and learning agreement.
- Supervisors should perform an orientation to familiarise new trainees with the ultrasound department, ensuring they understand the department's protocols, equipment and workflow. An example flowchart can be found in [Table 1 Orientation flowchart for new trainees](#).
- Use a variety of supervision methods, such as direct observation, case discussions, and practical demonstrations, to address different learning styles and enhance trainee learning.<sup>2,59</sup>
- Supervisors should use established best practice guidelines to deliver training. See [Table 2 for information on supervision in remote settings](#) and [Table 3 for supervision in of sonographers with overseas qualifications](#).
- Adapt teaching and learning practices to focus on the needs of each trainee, promoting inclusivity and flexibility.<sup>15,20,59,63</sup>
- Be flexible with scheduling to accommodate the progress and needs of the trainee, allowing them to set their own pace and work within their competency.<sup>43,62</sup>
- Schedule consistent supervision sessions that are free from interruptions to provide focused guidance and support.<sup>2,21,70</sup> Protected time for supervision sessions should be scheduled at a minimum weekly for novice trainees and fortnightly for advanced stage trainees.

### 2.5 Skill development / scaffolded learning

- Follow a structured and documented approach to skill development, ensuring a logical progression from basic to advanced competencies.<sup>59,60</sup> See [Table 4 for examples of competency milestones for trainee sonographers](#).
- Provide a scaffold for learning, adapting the structure as needed to fit individual trainee needs, and gradually increase exposure to more complex examinations.<sup>60</sup>
- Identify knowledge and skill gaps and employ appropriate tools to bridge these gaps.<sup>59,71</sup>
- Establish clear, achievable goals for trainees at the beginning of each new learning period.<sup>2,68</sup>
- Review these goals at a minimum weekly and adjust these goals based on progress and feedback. Example SMART goals are found in [Appendix 4 establishing goals and objectives](#).
- Balance between direct and indirect supervision, giving trainees freedom to learn while providing guidance when needed.<sup>2</sup>
- Identify when a trainee meets competency and can transition to indirect supervision.<sup>62</sup>

### 2.6 Supportive learning environment

- Foster a non-judgmental and open-minded attitude towards different learning styles and approaches.<sup>34,48,59</sup>

### 2.7 Facilitative learning

- Facilitate rather than direct trainee learning, using teaching and learning strategies to enable connections between theory and practice.<sup>16,59</sup>
- Demonstrate innovation and creativity in teaching methods to engage trainees and enhance their learning experience.<sup>59</sup> See [Table 5 for examples of models of supervision](#).

### 2.8 Proximity for supervision

- Ensure supervisors are located onsite and/or remote if policy and competency allow, to the trainee to provide adequate supervision and timely guidance.<sup>2</sup>
- At novice stage (see [Appendix 5 for Dreyfus model of skill acquisition](#)) the supervisor must be physically present and observing at all times.

### 2.9 Competency review, assessment and feedback

- Assign examinations that are appropriate to the trainee's competency and scope of training.
- Conduct regular assessments, as per educational course provider learning plan, to document and evaluate trainee progress, providing both formative (ongoing feedback) and summative (overall competency) assessments.<sup>11,23,25,26</sup>
  - Formative assessment should take place, at a minimum, monthly to evaluate specific skills, review clinical cases and set goals for the upcoming period.
  - Summative assessments should take place, at a minimum, at the end of every learning period to evaluate trainee's skills and development. The documentation from these assessments should be provided to the educational course provider.
- Examples of the key elements of clinical assessment, the process of clinical assessment, the Dreyfus model of skill acquisition and a template for clinical assessment can be found in [Appendix 5 clinical assessment](#).
- Deliver clear, actionable, and supportive feedback to trainees, encouraging self-reflection and continuous improvement.<sup>2,12,57,58</sup>
- Incorporate feedback literacy by understanding and respecting how trainees prefer to receive feedback.
- [Table 6 provides examples of methods and frequency of feedback](#) and [Table 7 provides case study examples](#).
- See [Appendix 6](#) for more information on providing feedback to the trainee.

- Perform 360-degree feedback for a comprehensive evaluation that gathers performance feedback from multiple sources, including peers, subordinates, supervisors, and self-assessment, to provide a well-rounded view of a trainee or supervisors' individual strengths and areas for improvement.<sup>72-74</sup>
- Encourage trainees to engage in self-reflection to critically evaluate their experiences, identify strengths and areas for growth, and develop action plans for improvement.<sup>60</sup>
- Promote the use of reflective journals and structured reflection models, such as Gibbs' Reflective Cycle, to help trainees systematically analyse their actions and decisions.
- The importance of reflective practice, Gibbs cycle of reflection and a reflective cycle template can be found in [Appendix 7 reflective practice](#).
- Supervisors should model reflective practice by sharing their own reflections and demonstrating how to apply insights gained from reflection to improve clinical practice.<sup>2,63</sup>

### 2.10 Managing clinical underperformance

- Keenly observe trainees to identify areas for improvement and address underperformance issues as soon as they are identified.<sup>43</sup>
- Maintain open communication with the educational course provider to ensure a collaborative approach to managing underperformance. This includes sharing relevant information about the trainee's progress and any concerns that arise.
- Provide ongoing support and closely monitor the trainee's progress, developing personalised improvement plans with specific goals and timelines.<sup>43</sup>
- The steps for addressing underperformance can be found in [Appendix 8 addressing underperformance](#).

### 2.11 Educational psychology

- Apply principles of educational psychology to understand and enhance the motivation of trainees, recognising factors that influence learning and implementing strategies to boost engagement and retention.<sup>59</sup>



**Table 1: Orientation flowchart for new trainees**

The following flowchart outlines the steps for a supervising sonographer to introduce a new trainee to an ultrasound department. Please see [appendix 9](#) for more detailed information.



**Table 2: Supervision of remote trainees**

Supervising trainees in remote settings presents unique challenges and opportunities.<sup>75</sup> The quality of supervision is a key determinant for both patient safety and attracting trainees to work in isolated environments.<sup>75</sup> Poorer health outcomes, such as fetal and maternal deaths, occur in low-resources and rural settings, with 90% of maternal deaths worldwide occurring in low-resource settings.<sup>76</sup> Remote

supervision should provide learning experiences that are comparable to traditional, direct supervision experiences.<sup>75</sup> These trainees often face geographic isolation, limited access to resources, and fewer opportunities for direct supervision.<sup>75,76</sup> Remote supervision should only be utilised once minimum competency has been achieved and is not suitable for novice trainees.

To address these challenges, the following strategies are recommended:

|  |  |
|--|--|
| <b>Remote supervision and telehealth</b> | <ul style="list-style-type: none"> <li>• Utilise telehealth technologies, depending on legislation, to provide remote supervision and support. This includes video conferencing for real-time feedback, virtual case discussions, and remote observation of clinical practice.<sup>75,77,78</sup></li> <li>• Implement tele-ultrasound/screen sharing systems that allow supervisors to guide and assess trainees' scans remotely.<sup>76,79,81</sup></li> <li>• Provide a clear escalation pathway and an alternative point of contact for supervision.<sup>75</sup></li> </ul> |
| <b>Regular on-site visits</b>            | <ul style="list-style-type: none"> <li>• Schedule regular on-site visits by/with supervisors to provide hands-on training, assess progress, and address any issues face by trainees.<sup>77</sup></li> <li>• Ensure these visits are well planned to maximise time spent on direct supervision and skill development.</li> </ul>   |
| <b>Peer support networks</b>             | <ul style="list-style-type: none"> <li>• Establish peer support networks among trainees in rural and remote areas to facilitate knowledge sharing, problem-solving and emotional support.<sup>77</sup></li> <li>• Encourage regular communication and collaboration through online forums, group chats and virtual meets.<sup>77</sup></li> </ul>  |
| <b>Access to resources</b>               | <ul style="list-style-type: none"> <li>• Provide trainees with access to online learning resources, including webinars, e-learning modules, and digital libraries.</li> <li>• Ensure trainees have the necessary equipment and technology to participate in remote learning and supervision activities.</li> <li>• Offer targeted workshops and training sessions specifically designed for rural and remote trainees.</li> </ul>  |

**Table 3: Sonographers with qualifications gained outside of Australia and New Zealand**

Supervising overseas sonographers who are new to the Australian and New Zealand healthcare systems requires a tailored approach to ensure they can practice safely and effectively. This tailored approach should include comprehensive orientation to local protocols, standards, and regulations, as well as ongoing support to address any cultural or procedural differences they may encounter.<sup>47</sup>

Supervisors should provide targeted training that focuses on bridging any gaps in knowledge and skills, ensuring that overseas sonographers are fully integrated into the healthcare team. Additionally, fostering an inclusive and supportive environment is crucial to help them adapt to the new work culture and build confidence in their practice. By addressing these unique needs, supervisors can help overseas sonographers transition smoothly and contribute effectively to patient care.

The following strategies are recommended to support their integration and professional development.

|  |  |
|--|--|
| <b>Compliance with regulatory requirements</b> | <ul style="list-style-type: none"> <li>• Ensure overseas sonographers are registered with the ASAR or NZ MRTB before commencing practice.</li> </ul>   |
| <b>Orientation and induction</b>               | <ul style="list-style-type: none"> <li>• Provide a comprehensive orientation program to familiarise sonographers with the healthcare system, including local protocols, standards, and cultural considerations.<sup>47,80</sup></li> <li>• Include an induction period where new sonographers can observe and learn from experienced sonographers.<sup>80</sup></li> </ul> |
| <b>Structured supervision plans</b>            | <ul style="list-style-type: none"> <li>• Develop individualised supervision plans that outline specific goals, expectations, and timelines.</li> <li>• Ensure these plans are flexible to accommodate the varying level of experience and expertise.</li> </ul>  |
| <b>Regular feedback and assessment</b>         | <ul style="list-style-type: none"> <li>• Conduct regular performance assessments and provide constructive feedback to help improve their skills and adapt to the local practice environment.<sup>47,80</sup></li> <li>• Use a combination of formal evaluations and informal check-ins to monitor progress and address any challenges.</li> </ul>                          |
| <b>Cultural competence and safety training</b> | <ul style="list-style-type: none"> <li>• Offer training on cultural competence and safety to help overseas sonographers understand and respect the diverse cultural backgrounds of patients.<sup>47</sup></li> <li>• Encourage awareness of cultural differences and promote culturally sensitive care practices.</li> </ul>   |
| <b>Mentorship and peer support</b>             | <ul style="list-style-type: none"> <li>• Pair overseas sonographers with experienced mentors who can provide guidance, support and professional advice.<sup>80</sup></li> <li>• Establish peer support networks to facilitate knowledge sharing and emotional support.</li> </ul>  |

**Table 4: Example of competency milestones trainee sonographers: Pre-accreditation and certification**

Note: Trainees may be at different stages of development for different examinations and progression should be competency based.

|  |  |
|--|--|
| <b>Novice Stage<br/>(0-6 months or<br/>clinical training<br/>placement 1)</b>              | <ul style="list-style-type: none"> <li>• Demonstrate fundamental understanding of ultrasound physics and instrumentation</li> <li>• Perform basic patient positioning and probe manipulation under direct supervision</li> <li>• Recognise normal anatomy on ultrasound images</li> <li>• Adhere to infection control and safety protocols</li> <li>• Communicate effectively with patients and supervisors</li> </ul> |
| <b>Intermediate Stage<br/>(6-12 months or<br/>clinical training<br/>placement 2)</b>       | <ul style="list-style-type: none"> <li>• Undertake routine examinations with minimal supervision</li> <li>• Identify common pathologies on ultrasound images</li> <li>• Optimise image quality through appropriate machine settings</li> <li>• Record findings accurately in reports</li> <li>• Demonstrate comprehension of sonographic protocols for different examinations</li> </ul>                               |
| <b>Advanced Stage<br/>(12-18 months or<br/>clinical training<br/>placement 3)</b>          | <ul style="list-style-type: none"> <li>• Perform complex examinations with increasing autonomy</li> <li>• Recognise and document subtle pathologies</li> <li>• Adapt examination techniques for challenging patients</li> <li>• Integrate clinical information with sonographic findings</li> <li>• Participate in multidisciplinary team discussions</li> </ul>   |
| <b>Pre-accreditation Stage<br/>(18-24 months or<br/>clinical training<br/>placement 4)</b> | <ul style="list-style-type: none"> <li>• Perform all examinations independently, seeking guidance only for rare or complex cases</li> <li>• Demonstrate advanced critical thinking skills in image acquisition and interpretation</li> <li>• Engage in quality improvement initiatives</li> <li>• Demonstrate understanding of research and evidence-based practice in sonography</li> </ul>                           |

**Table 5: Models of supervision**

There are many models and approaches of supervision for different learning styles and selecting a model of supervision is dependent on the trainee’s learning style and level of competency.<sup>15</sup>

**One-to-One or Direct Supervision**

Direct supervision, where the supervisor and trainee work together in the same ultrasound room, helps trainees reflect on their performance.<sup>15,55</sup> It builds trust and helps trainees learn new skills.<sup>55</sup> By working together, they can solve problems in real-time, allowing the supervisor to give accurate feedback based on the trainee’s performance.<sup>55</sup> By ensuring that supervisors are in the room for each scan, the training process becomes more interactive, supportive, and effective, ultimately leading to the development of highly skilled and competent sonographers.

|   |   |
|---|---|
| <p><b>Pros:</b></p> <ul style="list-style-type: none"> <li>• Allows for individualised attention and feedback<sup>11</sup></li> <li>• Facilitates direct observation of trainee skills<sup>55</sup></li> <li>• Enables immediate correction of errors<sup>55</sup></li> </ul> | <p><b>Cons:</b></p> <ul style="list-style-type: none"> <li>• Time-intensive for supervisors</li> <li>• May limit exposure to diverse perspectives</li> <li>• Can be intimidating for some trainees</li> </ul> |
|---|---|

**Group Supervision**

Group supervision is effective for learning and peer support.<sup>51</sup> For group supervision to be successful supervisor training, organisational support and group structure need to be considered.<sup>21,51</sup> This method is useful in rural areas, helping with supervisor shortages and improving efficiency.<sup>2,36,81</sup> It reduces isolation and burnout for rural health professionals, improving job satisfaction and retention.<sup>11,32,51</sup>

|  |  |
|--|--|
| <p><b>Pros:</b></p> <ul style="list-style-type: none"> <li>• Promotes peer learning and support<sup>2,20,36,81</sup></li> <li>• More efficient use of supervisor time</li> <li>• Exposes trainees to diverse cases and perspectives<sup>2,36,81</sup></li> </ul> | <p><b>Cons:</b></p> <ul style="list-style-type: none"> <li>• Less individualised attention</li> <li>• Quieter trainees may not participate fully</li> <li>• Scheduling can be challenging</li> </ul> |
|--|--|

**Peer Supervision**

Peer supervision is intended to provide reciprocal trainee assistance to support clinical and professional reflection.<sup>82</sup> It is not intended to replace qualified sonographer supervision but to complement it, ensuring that trainees receive comprehensive guidance and support. Supervision by a clinical supervisor remains essential for providing expert oversight, detailed feedback, and ensuring adherence to professional standards. Peer supervision can involve trainees discussing cases or scenarios.<sup>82</sup> This aims to help debrief from stressful situations and reduce the emotional burden of managing complex cases.<sup>82</sup>

|  |   |
|--|---|
| <p><b>Pros:</b></p> <ul style="list-style-type: none"> <li>• Encourages collaborative learning</li> <li>• Develops leadership skills in senior trainees</li> <li>• Reduces pressure on senior supervisors</li> </ul> | <p><b>Cons:</b></p> <ul style="list-style-type: none"> <li>• Quality may vary depending on peer expertise</li> <li>• May lack the depth of experienced supervisor input</li> <li>• Potential for misinformation if not properly overseen</li> </ul> |
|--|---|

**Table 5: Models of supervision****Remote Supervision**

Online/remote supervision has also emerged to solve geographical barriers, allowing trainees to connect virtually.<sup>32,69,77–79</sup> This approach leverages technology to facilitate real-time communication and feedback, making it possible for trainees in remote or underserved areas to receive the support they need. However, it is important to note that this level of supervision is only suitable once trainees have achieved advanced stage competency. Initial training and supervision should still be conducted in-person to ensure foundational skills are properly developed and assessed. It is essential to refer to local policy and guidelines to ensure compliance with specific requirements and regulations for remote supervision.

**Pros:**

- Enables supervision in rural or remote settings
- Provides flexibility in scheduling
- Can incorporate technology for image review

**Cons:**

- Lacks direct guidance for practical skills
- May face technical challenges
- Can feel less personal or supportive

**Case-Based**

Case-based supervision helps trainees develop clinical skills, fill knowledge gaps, and build confidence.<sup>82</sup> Applying theoretical knowledge in real patient interactions supports their growth and learning.

**Pros:**

- Focuses on real-world application of skills
- Encourages critical thinking and problem-solving
- Can be adapted to trainee's level of experience

**Cons:**

- May not cover all required competencies systematically
- Relies on availability of suitable cases
- Can be time-consuming to prepare

**Table 6: Examples of methods and frequency of feedback**

|                                 |  |
|---------------------------------|--|
| <b>Direct Observation</b>       | <ul style="list-style-type: none"> <li>• <b>Frequency:</b> Each scan initially and intermittently as trainee progresses</li> <li>• <b>Method:</b> Supervisor observes trainee performing scans and provides immediate verbal feedback following the examination. Supervisor uses feedback to inform development of skills. Detail across components increases as trainee progresses while competency is developing.</li> </ul> |
| <b>Formal Progress Meetings</b> | <ul style="list-style-type: none"> <li>• <b>Frequency:</b> Monthly</li> <li>• <b>Method:</b> Structured and documented discussion of trainee's progress, goal-setting, and written feedback</li> </ul>   |
| <b>Image Review Sessions</b>    | <ul style="list-style-type: none"> <li>• <b>Frequency:</b> Bi-weekly</li> <li>• <b>Method:</b> Joint review of trainee's images, discussing technique and interpretation</li> </ul>  |
| <b>360-Degree Feedback</b>      | <ul style="list-style-type: none"> <li>• <b>Frequency:</b> Quarterly</li> <li>• <b>Method:</b> Collect feedback from colleagues, patients, and other healthcare professionals</li> </ul>   |
| <b>Self-Reflection Logs</b>     | <ul style="list-style-type: none"> <li>• <b>Frequency:</b> Weekly</li> <li>• <b>Method:</b> Trainee maintains a reflective journal, discussed with supervisor monthly</li> </ul>   |

Table 7: Case study examples

|   |   |
|---|---|
| <b>1 Intermediate trainee in morphology scans</b> | <p><b>Isabelle, an intermediate trainee is in her third month of obstetric training.</b></p> <p><b>Feedback Plan:</b></p> <ul style="list-style-type: none"> <li><b>a. Daily:</b> Brief verbal feedback after each supervised session</li> <li><b>b. Weekly:</b> 30 minute image review session focussing on fetal biometry techniques and key image acquisition</li> <li><b>c. Monthly:</b> Formal progress meeting to discuss overall development and set specific goals for improvement</li> <li><b>d. Quarterly:</b> 360 degree feedback from colleagues, patient feedback, and reporting doctors.</li> </ul> <p><b>Outcome:</b> Isabelle's scanning technique and scan time improved significantly, patient interaction improved, and confidence grew.</p>   |
| <b>2 Advanced trainee in carotid examinations</b> | <p><b>James is an advanced trainee in his final six months of vascular sonography training.</b></p> <p><b>Feedback Plan:</b></p> <ul style="list-style-type: none"> <li><b>a. Bi-weekly:</b> Joint complex case reviews, focusing on diagnostic accuracy</li> <li><b>b. Monthly:</b> Peer-led image interpretation sessions, with supervisor moderation</li> <li><b>c. Quarterly:</b> Formal progress meetings, including discussion of research project</li> <li><b>d. Ongoing:</b> Encourage James to provide feedback to junior trainees, with supervisor oversight</li> </ul> <p><b>Outcome:</b> James developed advanced diagnostic skills and mentoring abilities, preparing him for independent practice.</p>  |
| <b>3 Overseas qualified sonographer</b>           | <p><b>Ida is registered by NZ MRTB. She qualified in Chicago and has over 4000 hours of clinical practice.</b></p> <p><b>Feedback Plan:</b></p> <ul style="list-style-type: none"> <li><b>a. Weekly:</b> Case review focusing on adherence to protocols and report writing</li> <li><b>b. Monthly:</b> Formal progress meeting to discuss integration into healthcare system, progress of cultural competency and cultural safety training, and address any additional training needs</li> <li><b>c. 6 month review:</b> Documentation of completed cultural training and discussion over any further oversight to ensure competency of expected examinations and protocols.</li> </ul> <p><b>Outcome:</b> Ida feels supported as she integrates within a new system and feels confident to develop independent practice.</p> |



## Key insights for Domain 2 - Educational competence

Educational competence in clinical supervision is essential for fostering a supportive learning environment. Supervisors should create a non-judgemental and open-minded atmosphere that accommodates learning styles and approaches, allowing trainees to express their thoughts and concerns without fear of criticism. By demonstrating enthusiasm and passion for teaching, supervisors can motivate trainees to engage more deeply with their learning. Knowledge of adult learning principles is crucial, as it helps supervisors understand that adults learn best when they are involved in the planning and evaluation of their instruction. Utilising diverse training methods, such as direct observation, case discussion, and practical demonstrations, can address different learning styles and enhanced training.

A structured and documented approach to skill development ensures a logical progression from basic to advanced competencies, helping trainees build a solid foundation before moving on to more complex tasks. Providing a scaffold for learning, with a gradual increase in exposure to more complex examinations, allows trainees to develop their skills at a comfortable pace. Regular formative assessments offer ongoing feedback and opportunities for improvement, while summative assessments at the end of training periods evaluate overall competency. Clear, actionable, and supportive feedback encourages self-reflection and continuous improvement.

Reflective practice is a critical component of educational competence. Promoting the use of reflective journals and structured reflection models, such as Gibbs' Reflective Cycle, helps trainees systematically analyse their actions and decisions, enhancing self-awareness and critical thinking. Supervisors should model reflective practice by sharing their own reflections and demonstrating how to apply insights gained from reflection to improve clinical practice.

Early identification and support for underperformance are crucial. Supervisors should keenly observe trainees to identify areas for improvement and address issues promptly, providing ongoing support and closely monitoring progress. Maintaining open communication with educational providers ensures a collaborative approach to managing underperformance, with personalised improvement plans that include specific goals and timelines.

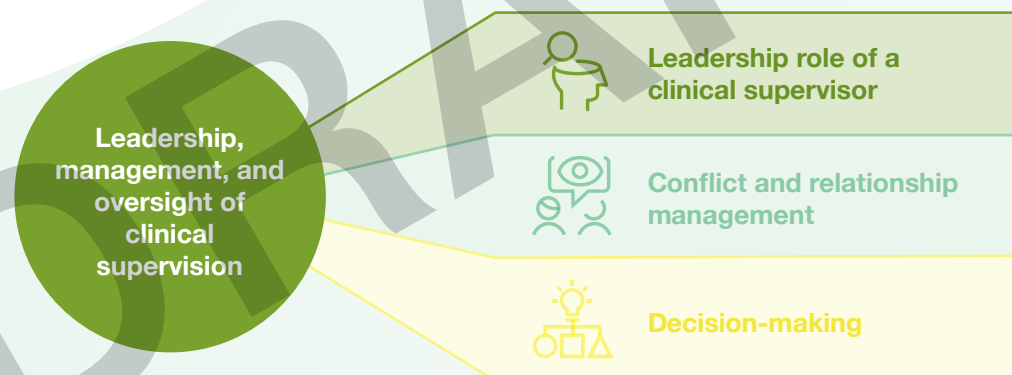
By integrating these strategies, supervisors can create a dynamic and supportive learning environment that not only enhances trainee performance but also contributes to higher standards of patient care and professional development.

## Domain 3 – Leadership, management and oversight of clinical supervision

Domain three focuses on the essential leadership and management skills required for effective clinical supervision. Supervisors must set a clear vision, demonstrate integrity, and inspire and motivate their teams. Effective leadership involves guiding and supporting trainees towards achieving common goals while fostering a positive and inclusive work environment. Conflict and relationship management are crucial, as supervisors need to develop skills to manage and resolve conflicts

constructively, maintaining professionalism and ensuring respectful resolutions. Strong decision-making skills, including critical thinking, problem-solving, and ethical considerations, are necessary to prioritise patient care and trainee development. By embodying these leadership qualities, supervisors can create a cohesive and productive learning environment that supports the professional growth of trainees and enhances the overall quality of care provided to patients.

### Domain 3 - Leadership, management and oversight of clinical supervision



- 3.1 **Effective supervisors set a clear vision, demonstrate integrity, and inspire and motivate others.**
- 3.2 **Develop skills to manage and resolve conflicts constructively, maintaining professionalism and ensuring respectful resolutions.**
- 3.3 **Possess strong decision-making skills, including critical thinking, problem-solving, and ethical considerations to prioritise patient care and trainee development.**

## Domain 3 – Leadership, management and oversight of clinical supervision

### 3.1 Leadership role of a clinical supervisor

- Effective leaders set a clear vision, demonstrate integrity, and inspire and motivate others.<sup>81</sup>
- Leaders guide their teams and/or trainees towards achieving common goals while fostering a positive and inclusive work environment.<sup>59</sup>
- Manage teams and trainees by delegating tasks, fostering teamwork, and managing diverse groups.<sup>59</sup>
- Organise and coordinate team efforts to ensure efficient and effective clinical training.<sup>59</sup>
- A clinical supervisor fosters collaborative interprofessional relationships by promoting open communication, mutual respect, and teamwork among diverse healthcare professionals.<sup>48,69</sup>

### 3.2 Conflict and relationship management

- Develop skills to manage and resolve conflicts constructively, staying calm, addressing issues promptly, and finding mutually acceptable solutions.<sup>65</sup>

- Maintain professionalism and ensure conflicts are resolved respectfully.<sup>10</sup>
- Effective relationship management between a supervisor and trainee involves maintaining professional boundaries by fostering a supportive yet respectful environment, ensuring clear communication, and focusing on the trainee's development and performance.<sup>2,16</sup>

### 3.3 Decision-making

- Possess strong decision-making skills, including critical thinking, problem-solving, and ethical considerations.<sup>59,63</sup>
- Make informed decisions that prioritise patient care and trainee development.<sup>34,48</sup>
- Demonstrate critical thinking and clinical reasoning skills to determine technical or diagnostic limitations of a scan.<sup>59,63</sup>

## Key insights for Domain 3: Leadership, management and oversight of clinical supervision

Effective leadership and management in clinical supervision are crucial for creating a cohesive and productive learning environment.

Supervisors must demonstrate strong leadership skills, which include setting a clear vision, demonstrating integrity, and inspiring and motivating others. Effective leaders manage their teams by delegating tasks appropriately, fostering teamwork, and coordinating efforts to ensure efficient and effective clinical training.

Conflict and relationship management are essential components of effective supervision. Supervisors should develop skills to manage and resolve conflicts constructively, staying calm, addressing issues promptly, and finding mutually acceptable solutions. Maintaining professionalism and ensuring conflicts are resolved respectfully is key to preserving a positive learning environment.

Supervisors must possess strong decision-making skills, including critical thinking, problem-solving, and ethical considerations. Making informed decisions that prioritise patient care and trainee development is essential. Supervisors should demonstrate critical thinking and clinical reasoning skills to determine the technical or diagnostic limitations of a scan, ensuring that trainees receive accurate and relevant guidance.

By integrating these leadership and management strategies, supervisors can inspire and guide trainees towards achieving their full potential. This approach not only enhances the quality of training but also fosters a culture of continuous improvement.

## Domain 4 – Ethical and legal knowledge

Domain three focuses on the essential leadership and management skills required for effective clinical supervision. Supervisors must set a clear vision, demonstrate integrity, and inspire and motivate their teams. Effective leadership involves guiding and supporting trainees towards achieving common goals while fostering a positive and inclusive work environment. Conflict and relationship management are crucial, as supervisors need to develop skills to manage and resolve conflicts

constructively, maintaining professionalism and ensuring respectful resolutions. Strong decision-making skills, including critical thinking, problem-solving, and ethical considerations, are necessary to prioritise patient care and trainee development. By embodying these leadership qualities, supervisors can create a cohesive and productive learning environment that supports the professional growth of trainees and enhances the overall quality of care provided to patients.

- 4.1 **Ensure a safe physical and psychological work environment by adhering to health and safety regulations and promoting mental health awareness.**

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- 4.2 **Provide thorough training on medical ethics, maintain patient confidentiality, and promote high standards of professional conduct.**

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- 4.3 **Ensure trainees adhere to the Australian Professional Competency Framework for Sonographers,<sup>1</sup> ASA Code of Conduct<sup>46</sup> and NZ MRTB Competence Standards for Medical Imaging and Radiation Therapy Practitioners in Aotearoa New Zealand,<sup>66</sup> obtain informed consent, and maintain accurate documentation.**

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- 4.4 **Comply with legal and professional responsibilities for continuous professional development and adhere to national, state, and practice-specific guidelines.**

#### 4.1 Safe work environment

- Ensure a safe physical work environment by adhering to health and safety regulations, maintaining equipment, and providing ergonomic tools. Regularly assess and mitigate potential hazards.<sup>60</sup>
- Promote mental health awareness, provide access to counselling services, and encourage open communication about stress and burnout.<sup>60,61</sup>
- Create a supportive culture where trainees feel valued.
- Implementing an anti-bullying policy in the workplace that aligns with fair workplace requirements.<sup>83,84</sup> This policy should clearly define bullying, outline reporting procedures, and ensure protection for those who report incidents.
- Providing training for all staff on recognising and preventing bullying can further reinforce a zero-tolerance stance on bullying.

#### 4.2 Ethical practices

- Provide thorough training on the principles of medical ethics, including autonomy, beneficence, non-maleficence, justice and the Australian Charter of Healthcare Rights. Emphasise ethical decision-making in clinical practice.<sup>10,85</sup>
- Ensure trainees understand the importance of maintaining patient confidentiality, including secure handling of patient records and information.<sup>2,25,32,34,69</sup>
- Promote high standards of professional conduct, including honesty, integrity, and respect for patients and colleagues. Address breaches of conduct promptly.
- Maintain professional boundaries in all interactions.<sup>62</sup>
- Demonstrate reflective capabilities and emotional intelligence.<sup>59</sup> Use reflective practice to assess and improve ethical and legal approaches.<sup>62</sup>

#### 4.3 Legal responsibilities

- Ensure trainees are adhering to the Australian Professional Competency Framework for Sonographers<sup>1</sup>, the ASA Code of Conduct,<sup>46</sup> or the NZ MRTB Competence Standards for Medical Imaging and Radiation Therapy Practitioners in Aotearoa New Zealand,<sup>66</sup> and professional standards.
- Recognise and respond appropriately to unsafe or unprofessional practice.<sup>61</sup>
- Ensure trainees have knowledge of and understanding of the fundamental legal and ethical responsibility to obtain informed consent. Ensure trainees are aware of the ASUM Standards of Practice<sup>86</sup> and the ASA's guidelines for consent.<sup>87,88</sup>
- Educate trainees that informed consent involves providing patients with comprehensive information about the procedure, including its purpose, potential risks, benefits, and any alternatives, using plain language and check for understanding, considering cultural background, language proficiency, and any disabilities.<sup>61,62</sup>
- Ensure consent is given voluntarily, without coercion, and inform patients they can withdraw consent at any time.<sup>87,88</sup>
- Emphasise the importance of accurate and thorough documentation in clinical practice for continuity of care and legal compliance.<sup>87,88</sup>
- Ensure trainees are aware of the requirements for professional indemnity insurance and inform them of their options as part of the supervision process.

#### 4.4 Policy, procedural and protocol requirements

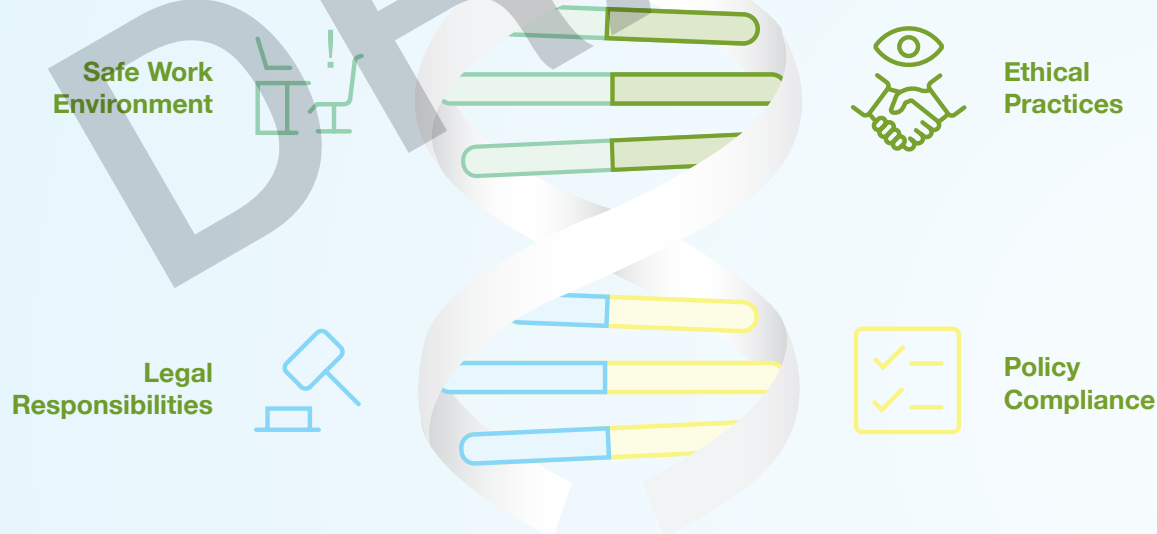
- Comply with legal and professional responsibilities for continuous professional development.<sup>61</sup> Stay updated with the latest practices and guidelines.
- Ensure familiarity with national and state-specific protocols governing clinical practice, including updates.
- Adhere to practice-specific protocols and guidelines, ensuring trainees are aware and compliant.<sup>2,16,25,59,61,63,67</sup>

## Key insights for Domain 4: Ethical and legal knowledge

Ethical and legal knowledge is fundamental to clinical supervision, ensuring that both supervisors and trainees adhere to the highest standards of professional conduct. Supervisors must ensure that the clinical environment is safe for both patients and healthcare professionals by adhering to health and safety regulations, maintaining equipment, and providing ergonomic tools to prevent workplace injuries. Promoting psychological safety is also crucial, encouraging open communication about stress and burnout, providing access to counselling services, and creating a supportive culture where trainees feel valued. Supervisors should emphasise ethical decision-making in clinical practice, ensuring that trainees understand and apply these principles in their daily interactions with patients.

Supervisors must ensure that trainees are aware of and adhere to legal responsibilities in clinical practice, including maintaining patient confidentiality, obtaining informed consent, and accurately documenting patient interactions. Providing thorough training on the legal aspects of healthcare, such as the importance of professional indemnity insurance and the consequences of unsafe or unprofessional practice, helps trainees understand the significance of compliance with national and state-specific protocols and guidelines. By integrating these strategies, supervisors can create a dynamic and supportive learning environment that promotes high standards of patient care and professional development, fostering a culture of integrity and accountability.

### Domain 4 Ethical and legal knowledge



## Outcomes of supervision

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|---|--|
| <b>Improved patient care</b>                                    | <ul style="list-style-type: none"> <li>• <b>Quality and safety:</b> Supervised trainees adhere to best practices, improving patient care.<sup>11</sup></li> <li>• <b>Error reduction:</b> Early identification and correction of errors.</li> <li>• <b>Enhanced patient experience:</b> Effective supervision ensures that trainees are well-prepared to provide compassionate and competent care, leading to improved patient satisfaction.<sup>18</sup></li> </ul>   |
| <b>Cultural competency and safety trainees.</b> <sup>5,89</sup> | <ul style="list-style-type: none"> <li>• <b>Inclusive care:</b> Ensures that supervision practices respect and address the diverse cultural needs of patients</li> <li>• <b>Equity and respect:</b> Encourages the recognition and validation of diverse cultural identities, contributing to equitable and respectful healthcare delivery.<sup>5,89</sup></li> <li>• <b>Cultural awareness:</b> Promotes culturally sensitive practices during patient interactions, fostering an inclusive and respectful environment.<sup>5,89</sup></li> </ul>   |
| <b>Enhanced clinical skills</b>                                 | <ul style="list-style-type: none"> <li>• <b>Skill development:</b> Trainees refine their clinical skills through guided practice and feedback.<sup>15,16,21</sup></li> <li>• <b>Confidence building:</b> Regular supervision boosts trainees' confidence in their abilities.<sup>2,11,15,16,20,23</sup></li> </ul>   |
| <b>Emotional and psychological support</b>                      | <ul style="list-style-type: none"> <li>• <b>Stress management:</b> Provides a support system for managing emotional and psychological stresses.<sup>2,11,15,16,20,23</sup></li> <li>• <b>Well-being:</b> Regular check-ins and supportive interactions reduce burn-out and promoting job satisfaction.<sup>11,22,15,49,54,55</sup></li> <li>• <b>Maintaining motivation:</b> Recognising achievements and fosters a supportive team environment.<sup>2</sup></li> <li>• <b>Professional self-worth:</b> Supporting the development of professional self-worth through mentorship.<sup>2</sup></li> </ul> |
| <b>Professional growth</b>                                      | <ul style="list-style-type: none"> <li>• <b>Continuous learning:</b> Encourages staying updated with advancements in the field.<sup>2,16,21</sup></li> <li>• <b>Reflective practice:</b> Trainees critically evaluate their experiences to improve clinical reasoning.<sup>2,16,21</sup></li> <li>• <b>Self-awareness development:</b> Encourages trainees to recognise their strengths and areas for improvement.<sup>2</sup></li> <li>• <b>Theory integration:</b> Bridges the gap between classroom learning and clinical application.<sup>2</sup></li> </ul>   |
| <b>Accountability and professionalism</b>                       | <ul style="list-style-type: none"> <li>• <b>Ethical practice:</b> Ensures trainees uphold ethical standards and professional conduct.<sup>2,16,21,52</sup></li> <li>• <b>High-quality standards:</b> Establishes clear expectations and continuously monitors performance.<sup>15,22,25,49,55,56</sup></li> <li>• <b>Policy and procedure compliance:</b> Maintains a safe and effective clinical environment.<sup>15,22,25,49,55,56</sup></li> <li>• <b>Evidence-based healthcare:</b> Supports evidence-based practices by integrating current research.<sup>59</sup></li> </ul>                       |
| <b>Workplace benefits</b>                                       | <ul style="list-style-type: none"> <li>• <b>Retention:</b> Higher job satisfaction and retention rates, reducing turnover and associated costs.<sup>2,25,36</sup></li> <li>• <b>Team cohesion:</b> Promotes a collaborative and supportive work environment.<sup>2,16,21</sup></li> <li>• <b>Workforce development benefits:</b> Robust supervision practices can support increasing the number of sonographers in the workforce to meet the growing healthcare needs of the community.</li> </ul>   |

## Barriers to effective supervision

Effective clinical supervision can be hindered by various challenges. Understanding these barriers is crucial for developing strategies to overcome them and ensure high-quality supervision.<sup>2,19,20,23,90</sup> Supervisors that are inexperienced or disinvested in clinical supervision, lack communication skills or inflexible in their approach to supervision

have been found to have damaging effect on the supervisor-trainee relationship.<sup>15</sup> By recognising and addressing these barriers, workplaces and supervisors can foster a more effective and supportive supervision environment, ultimately improving the training experience.

|  |   |
|--|---|
| <b>Inadequate supervisory skills</b>         | Poor supervision quality can negatively impact trainee development and patient safety. <sup>15</sup>  |
| <b>Personal attitudes</b>                    | Hostile or unsupportive learning environments can decrease trainee motivation and performance. <sup>2,10,16</sup> These attitudes can stem from personal biases, burnout, or a lack of commitment to the supervisory role. <sup>24,10,24</sup>  |
| <b>Power differential</b>                    | Power imbalance between supervisors and trainees can create an intimidating environment, making trainees hesitant to express concerns. <sup>15,22,31,90</sup> This issue is worsened if supervisors are involved in operational management, leading to potential conflicts of interest. <sup>15,22,31,90</sup> The competitive nature of training positions adds pressure, discouraging trainees from reporting issues. <sup>91</sup>   |
| <b>Long term one-on-one relationships</b>    | In small departments, supervisors and trainees often develop long-term one-on-one relationships, which may lead to dependency and potential conflicts. The close nature of these relationships can sometimes blur professional boundaries and create challenges in maintaining objectivity. <sup>59,71</sup><br>This can hinder the trainee's professional growth and development. Additionally, the trainee may become overly reliant on the supervisor, reducing their ability to work independently and make autonomous decisions. |
| <b>Training program structure</b>            | Poorly organised training programs can hinder effective supervision. <sup>10</sup>  |
| <b>Exclusion from learning opportunities</b> | Excluding trainees from complex cases can deprive them of important learning experiences. <sup>10</sup>   |
| <b>Workplace culture</b>                     | A negative organisational culture can impede the effectiveness of clinical supervision, reduce engagement and support for trainee learning. <sup>81</sup>   |
| <b>Managing underperforming trainees</b>     | Avoiding the management of underperforming trainees can lead to unresolved issues. <sup>10</sup> Suboptimal performance must be addressed promptly with established protocols to ensure patient care quality is maintained. <sup>92</sup>   |
| <b>Time constraints</b>                      | <sup>11,20,22,49,54</sup> Limited supervision time can lead to trainee anxiety, feelings of isolation, and working beyond their capabilities, potentially compromising patient care. <sup>11,15,20,22,49,54</sup>   |
| <b>Organisational support</b>                | A lack of organisational support and commitment can undermine the value of clinical supervision. <sup>81</sup> Financial constraints and productivity concerns can be significant barriers to effective supervision, especially in private practice settings. Employers may be reluctant to allocate resources for supervision, as it can reduce productivity and increase costs.   |



## Evaluation of the supervisor - trainee relationship

A formal, documented, process for evaluation and providing feedback on the supervision relationship is essential to ensure its effectiveness and foster continuous improvement. Regular evaluations of both the supervisor and the supervision process are necessary to maintain the

quality and efficiency of trainee education and patient care.<sup>64</sup> This process should be clearly documented to track progress and identify areas for enhancement. See Appendix 10 for an example template for evaluating supervision. The key elements of supervision include:

|  |  |
|--|--|
| <b>Foundation of trust and respect</b> | <ul style="list-style-type: none"> <li>• Establish a strong relationship based on trust, honest and mutual respect.<sup>11,20-22,25,36</sup></li> <li>• Create a safe environment where trainees feel comfortable providing honest feedback.</li> </ul>  |
| <b>Regular evaluation</b>              | <ul style="list-style-type: none"> <li>• Conduct evaluations at regular intervals (at a minimum every three months for novice trainees and every six months for advanced stage trainees).</li> <li>• Use evaluations to identify areas for improvement and to enhance the quality of supervision.</li> </ul>   |
| <b>Components of evaluation</b>        | <ul style="list-style-type: none"> <li>• Assess the overall supervision process, including the methods and approaches used.</li> <li>• Evaluate the skills and competencies of the supervisor, such as communication, support, and teaching abilities.<sup>14</sup></li> <li>• Examine the quality of the relationship between the supervisor and trainee, focusing on trust, respect, and support.</li> <li>• Measure the outcomes of the supervision, including trainee progress and development.</li> </ul> |
| <b>Trainee feedback</b>                | <ul style="list-style-type: none"> <li>• Provide trainees with the opportunity to give feedback on their supervision experience.<sup>14</sup></li> <li>• Encourage trainees to provide honest feedback to help supervisors understand what works well and identify areas for improvement.<sup>36,48</sup></li> </ul>   |
| <b>360-degree feedback</b>             | <ul style="list-style-type: none"> <li>• Collect performance feedback from multiple sources, including colleagues, team members, managers and self-evaluations.<sup>72-74</sup></li> <li>• Use diverse viewpoints to create a balanced and comprehensive understanding of strengths and areas needing improvement.<sup>72-74</sup></li> </ul>  |
| <b>Reflective practice</b>             | <ul style="list-style-type: none"> <li>• Promote self-reflection among trainees to critically evaluate their experiences and identify strengths and areas for growth.<sup>60</sup></li> <li>• Encourage the use of reflective journals to help trainees systematically analyse their actions and decisions.</li> </ul>   |
| <b>Third-party involvement</b>         | <ul style="list-style-type: none"> <li>• Involve a third person within the department to facilitate communication during difficult conversations.</li> <li>• Use an objective perspective to assist in resolving conflicts.</li> </ul>   |
| <b>Evaluation methods</b>              | <ul style="list-style-type: none"> <li>• Use both formal evaluations (structured assessments) and informal evaluations (ongoing feedback) to get a comprehensive view of the supervision process.</li> <li>• Implement feedback forms and templates to standardise the evaluation process and ensure consistency.<sup>14</sup></li> </ul>  |

## Trainee responsibilities

Supervision is a collaborative process that requires active participation from both the supervisor and the trainee.<sup>10</sup> Trainees must understand their responsibilities and take an active role in the supervision process to maximise their learning outcomes.<sup>10</sup> Trainees must uphold clinical

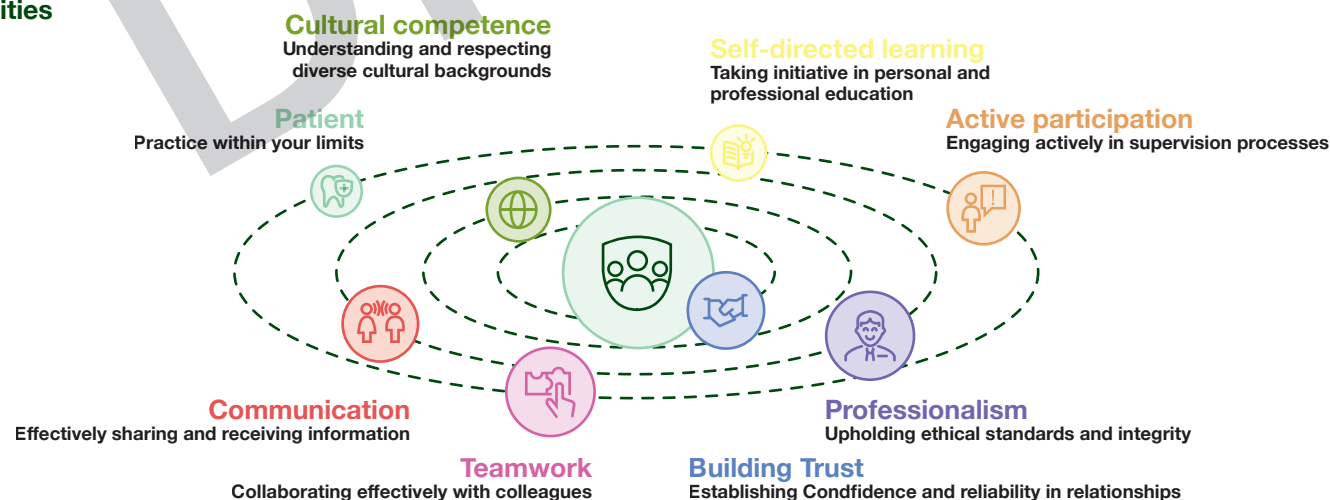
professionalism to successfully transition into competent clinicians.<sup>46,93</sup> Trainees must be registered to practise before commencing clinical supervision.<sup>94,95</sup> The following table outlines the primary responsibilities of a trainee, though it is not exhaustive.

|  |  |
|--|--|
| <b>Practice ensuring patient safety</b>        | <ul style="list-style-type: none"> <li>• Recognise your professional limits and practice within those limits.<sup>46,93</sup></li> <li>• Always request assistance when required to ensure patient safety and care remain a priority.</li> <li>• Advise your supervisor immediately of any issues or incidents.<sup>10</sup></li> </ul>  |
| <b>Practice cultural competence and safety</b> | <ul style="list-style-type: none"> <li>• Demonstrate respect for diverse cultural backgrounds by actively listening, acknowledging, and valuing the cultural beliefs and practices of patients and colleagues.<sup>5,89</sup></li> <li>• Engage in ongoing education and self-reflection to enhance cultural safety, understanding the impact of cultural difference on healthcare delivery and strive to provide culturally safe and sensitive care.<sup>5,89</sup></li> </ul>  |
| <b>Practice self-directed learning</b>         | <ul style="list-style-type: none"> <li>• Take responsibility for their own learning by proactively seeking out resources, asking insightful questions, and actively engaging in the learning process.<sup>10</sup> Demonstrate initiative and a commitment to continuous improvement.</li> <li>• Be well-prepared for training sessions, tutorials, and meetings.<sup>2,16,25</sup></li> </ul>   |
| <b>Practice active participation</b>           | <ul style="list-style-type: none"> <li>• Engage in the supervision process by contributing to discussions, sharing insights, and being open to feedback.<sup>10</sup></li> <li>• Commit to adapting your practice in identified areas to achieve improvement.<sup>10</sup></li> <li>• Maintain all records and documentation relating to clinical activities.</li> </ul>   |
| <b>Practice communication</b>                  | <ul style="list-style-type: none"> <li>• Clearly communicate training needs and expectations.</li> <li>• Use appropriate language to ensure information is accurately conveyed and understood.<sup>65,93</sup></li> <li>• Practice active listening, showing empathy and understanding, and be open to receiving and acting on feedback to improve their communication skills and overall performance.<sup>93</sup></li> </ul>   |
| <b>Practice teamwork</b>                       | <ul style="list-style-type: none"> <li>• Collaborate effectively with colleagues by actively participating in team discussions, sharing knowledge and insights, and supporting peers to achieve common goals.<sup>93</sup></li> <li>• Maintain clear, honest, and respectful communication with team members to ensure smooth coordination and address any issues promptly.<sup>93</sup></li> </ul>  |
| <b>Practice building trust</b>                 | <ul style="list-style-type: none"> <li>• Maintain a professional working relationship with the supervisor to allow for open and honest discussions.<sup>2</sup></li> <li>• Develop and apply skills in constructive confrontation to effectively address and resolve any issues that arise, fostering a collaborative and positive environment.<sup>93</sup></li> <li>• Foster a strong, trusting relationship with patients by actively listening to their concerns, demonstrating empathy, maintaining confidentiality, and consistently providing high-quality care.</li> </ul> |

## Trainee responsibilities

|   |   |
|---|---|
| <b>Practice professionalism</b>         | <ul style="list-style-type: none"> <li>• Consistently adhere to ethical guidelines and professional standards, demonstrating integrity, honesty, and respect in all interactions with patients, colleagues, and supervisors.<sup>93</sup></li> <li>• Take responsibility for actions, by being punctual, reliable, and maintaining a high level of competence and diligence in clinical duties, ensuring a positive contribution to the team.<sup>10</sup></li> </ul>   |
| <b>Practice seeking feedback</b>        | <ul style="list-style-type: none"> <li>• Actively seek feedback from the supervisor and engage in discussions about how to incorporate the feedback into practice.<sup>10</sup></li> <li>• Think about the timing and relevance of questions.<sup>10</sup></li> <li>• Understand and respect the supervisor's time and pressures by being patient and considerate.<sup>10</sup></li> <li>• Receive feedback constructively and actively engage with it to develop feedback literacy.<sup>10</sup></li> <li>• Engage in a discussion with the supervisor to identify and agree upon the preferred feedback style. This includes understanding the format, frequency, delivery method of feedback that works best for the individual.<sup>10</sup></li> </ul> |
| <b>Practice reflective practice</b>     | <ul style="list-style-type: none"> <li>• Contribute to reflective discussions about experiences to gain deeper insights and improve practice.<sup>2,16,25</sup></li> <li>• Be flexible and open to learning new methods and incorporating them into practice.<sup>14</sup></li> <li>• Continually evaluate and improve clinical skills to align with evidence-based best practices.<sup>65,93</sup></li> </ul>  |
| <b>Professional indemnity insurance</b> | <ul style="list-style-type: none"> <li>• Ensure full awareness of the obligation to obtain and maintain professional indemnity insurance before commencing training, as it provides essential legal protections for both the trainee and their patients.<sup>93</sup></li> </ul>  |

## Trainee Responsibilities



## Summary

This framework emphasises the importance of standardised and structured supervision for both supervisors and trainees, highlighting the benefits such as improved clinical skills, enhanced patient care, and professional growth.

By implementing this framework, healthcare workplaces can aim to foster a culture of excellence in clinical supervision, contributing to the development of competent sonographers and improved patient outcomes. Supervisors can enhance their teaching and leadership skills, while trainees benefit from a supportive and consistent learning environment.

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## References

1. Childs J, Thoires K, Osborne B, Halligan T, Stoodley P, Quinton A, et al. Professional competency framework for sonographers. 2021.
2. Health Education and Training Institute. The superguide: A guide for supervising allied health professionals. 2012.
3. Linn A, Kildea H, Tonkin A, Khaw C. Clinical reasoning: A guide to improving teaching and practice. *Aust Fam Physician*. 2012;41(1).
4. Mrayyan M, Abunab H, Abu Khait A, Rababa M, Al-Rawashdeh S, Aljunmeeyn A, et al. Competency in nursing practice: A concept analysis. *BMJ Open*. 2023;13(6). doi: 10.1136/bmjopen-2022-067352.
5. Australian Commission on Safety and Quality in Health Care. Action 1.21: Improving cultural competency. 2017.
6. Makanjee C, Allen M, Lee J, Gyawali J, Hayre C, Lewis S. Diagnostic radiography students' perspectives on cultural competence and safety. *Radiography*. 2023;29:S96–102. doi: 10.1016/j.radi.2023.03.001
7. American Psychological Association. Educational psychology. 2018
8. Stalin P. Emotional intelligence in health care. *J. Curr. Res*. 2024;10(1):1–2. doi: 10.4103/jcrsm.jcrsm\_40\_24
9. Cavaness K, Picchioni A, Fleshman J. Linking emotional intelligence to successful health care leadership: The big five model of personality. *Clin. Colon Rectal Surg*. 2020;33(4):195–203. doi: 10.1055/s-0040-1709435
10. ASA. ASA Guideline: A sonographer's guide to clinical supervision. 2015
11. Fenech M, Russo K, Alphonse J, Quinton A. A literature review to inform development of a sonographer career framework for Australian and New Zealand sonographers. 2024.
12. British Medical Ultrasound Society. Preceptorship and capability development framework for sonographers. 2022.
13. Pluciennicka E. Peer-to-peer support as an effective tool to combat mental health issues in academia. *Eurodoc*. 2020
14. Martin P, Copley J, Tyack Z. Twelve tips for effective clinical supervision based on a narrative literature review and expert opinion. *Med. Teach*. 2014;36(3):201–7. doi: 10.3109/0142159X.2013.852166.
15. Snowdon D, Sargent M, Williams C, Maloney S, Caspers K, Taylor N. Effective clinical supervision of allied health professionals: a mixed methods study. *BMC Health Serv Res*. 2020;20(1):2. doi.org/10.1186/s12913-019-4873-8
16. Society and College of Radiographers. Clinical supervision framework. Society and College of Radiographers; 2003.
17. Snowdon D, Hau R, Leggat S, Taylor N. Does clinical supervision of healthcare professionals improve patient safety? A systematic review and meta-analysis. *Int. J. Qual. Health Care*. 2016; 28(4): 447955. doi 10.1093/intqhc/mzw059
18. Snowdon D, Hau R, Leggat S, Taylor N. Does clinical supervision of healthcare professionals improve effectiveness of care and patient experience? A systematic review. *BMC Health Serv. Res*. 2017; 17: 786. doi.org/10.1186/s12913-017-2739-5
19. Gardner M, McKinstry C, Perrin B. Effectiveness of allied health clinical supervision following the implementation of an organisational framework. *BMC Health Serv Res*. 2022;22(1). doi.org/10.1186/s12913-022-07636-9
20. Wilson E, Taylor N. Clinical supervision for allied health professionals working in community health care settings. *J. Allied Health*. 2019;48(4):270–6.
21. Bradley P, Stapleton C, Stewart S. Position statement clinical supervision for nurses and midwives. 2019.
22. Coleman G, Hyde E. Is there a role for professional supervision in supporting the professional and personal wellbeing of the sonographic workforce? A literature review. *Radiography*. 2022;28(4):991–8. https://doi.org/10.1016/j.radi.2022.07.008
23. Martin P, Baldock K, Kumar S, Lizarondo L. Factors that contribute to high-quality clinical supervision of the rural allied health workforce: lessons from the coalface. *Aust. Health Rev*. 2019;43(6):682–8. doi: 10.1071/AH17258
24. Rothwell C, Kehoe A, Farook S, Illing J. Enablers and barriers to effective clinical supervision in the workplace: A rapid evidence review. *BMJ Open*. 2021;11. doi:10.1136/ bmjopen-2021-052929
25. Sharrock J. How to make the most of the clinical supervisory relationship. Australian College of Mental Health Nurses International Conference. 2022
26. Australian Commission on Safety and Quality in Health Care. The NSQHS standards - clinical performance and effectiveness. 2021
27. Singh H, Thomas E, Petersen L, Studdert D. Medical errors involving trainees. *Arch. Intern. Med*. 2007; 167(19):2030. doi:10.1001/archinte.167.19.2030
28. Recker F, Neubauer R, Dong Y, Gschmack A, Jenssen C, Möller K, et al. Exploring the dynamics of ultrasound training in medical education: current trends, debates, and approaches to didactics and hands-on learning. *BMC Med. Educ*. 2024; 24. doi.org/10.1186/s12909-024-06092-9
29. Younan K, Walkley D, Quinton A, Alphonse J. Burnout in the sonographic environment: The identification and exploration of the causes of sonographer burnout and strategies for prevention and control. *Sonography*. 2022;10(9):175–85. doi.org/10.1002/sono.12333
30. Nicholls D. The pedagogical approaches used by Australian sonographers to teach psychomotor scanning skills. 2020.
31. Leggat S, Phillips B, Pearce P, Dawson M, Schulz D, Smith J. Clinical supervision for allied health staff: necessary but not sufficient. *Aust. Health Rev*. 2016;40(4):431. doi: 10.1071/AH15080
32. Butterworth T. What is clinical supervision and how can it be delivered in practice? *Nurs. Times*; 2022; 20–2.

33. Snowdon D, Kent F, Farlie M, Taylor N, Howlett O, Downie S, et al. Access to and effectiveness of clinical supervision for allied health workers: A cross-sectional survey. *Med. Teach.* 2024;46(5):640–7. doi: 10.1080/0142159X.2023.2271158
34. King C, Edlington T, Williams B. The “ideal” clinical supervision environment in nursing and allied health. *J Multidiscip Healthc.* 2020;13:187–96. doi: 10.2147/JMDH.S239559.
35. Thoirs K, Kinnane P. A survey investigating sonographer roles and career pathways in Australia and New Zealand. 2024. [unpublished].
36. McGuinness S, Guerin S. Interprofessional supervision among allied health professionals: a systematic scoping review. *J. Interprof. Care;* 2024; 38:739–58. doi: 10.1080/13561820.2024.2343837
37. ASAR. ASAR course accreditation application. 2023
38. University of Auckland. Medical imaging postgraduate handbook. 2024.
39. Victorian State Government. Victorian allied health clinical supervision framework. 2019.
40. ACT Health. Clinical supervision framework for ACT nurses and midwives. 2023.
41. SA Health. Allied health clinical supervision framework. 2014
42. Hatch K, Boyle C. Clinical supervision framework for Queensland Health nurses and midwives. 2021.
43. The Royal Australian College of General Practitioners (RACGP). Accreditation standards for training sites and supervisors: Guide to implementation. 2022.
44. Occupational Therapy Australia. Professional supervision framework. 2019
45. Department of Health UK. Advanced AHP practice framework. 2019.
46. ASA. ASA Sonographer code of conduct. 2022.
47. New Zealand Medical Radiation Technologists Board. Supervision Policy. 2024.
48. Gibson S, Porter J, Anderson A, Bryce A, Dart J, Kellow N, et al. Clinical educators’ skills and qualities in allied health: a systematic review. *Med. Educ.* 2019; 53:432–42. doi: 10.1111/medu.13782
49. Gardner M, McKinstry C, Perrin B. Effectiveness of allied health clinical supervision following the implementation of an organisational framework. *BMC Health Serv Res.* 2022;22(1). doi.org/10.1186/s12913-022-07636-9
50. Ducat W, Kumar S. A systematic review of professional supervision experiences and effects for allied health practitioners working in non-metropolitan health care settings. *J. Multidiscip. Healthc.* 2015. 8: 97–407. doi: 10.2147/JMDH.S84557.
51. Gardner M, McKinstry C, Perrin B. Group clinical supervision for allied health professionals. *AJRH.* 2021;29(4):538–48. doi: 10.1111/ajr.12775.
52. Sloan G, White C, Coit F. Cognitive therapy supervision as a framework for clinical supervision in nursing: Using structure to guide discovery. *J Adv Nurs.* 2000;32(3):515–24. doi: 10.1046/j.1365-2648.2000.01511.x.
53. Snowdon D, Kolic J, Taylor N. Improvement in the short-term effectiveness of the clinical supervision of physiotherapists who have taken part in a clinical supervision training programme. *Physiother. Can.* 2021;73(4):370–80. doi: 10.3138/ptc-2019-0106.
54. Osiurak S, Taylor N, Albiston T, Williams K, Collyer T, Snowdon D. Interactive clinical supervision training added to self-education leads to small improvements in the effectiveness of clinical supervision of physiotherapists: a randomised trial. *J Physiother.* 2024;70(1):33–9. doi: 10.1016/j.jphys.2023.11.002.
55. Snowdon D, Leggat S, Harding K, Boyd J, Scroggie G, Taylor N. The association between effectiveness of clinical supervision of allied health professionals and improvement in patient function in an inpatient rehabilitation setting. *Disabil Rehabil.* 2020;42(8):1173–82. doi: 10.1080/09638288.2018.1518493.
56. Kumar S, Osborne K, Lehmann T. Clinical supervision of allied health professionals in country Australia: A mixed methods pilot study. *AJRH.* 2015;23(5):265–71. doi.org/10.1111/ajr.12231
57. O’Sullivan B, Hickson H, Kippen R, Wallace G. Exploring attributes of high-quality clinical supervision in general practice through interviews with peer-recognised GP supervisors. *BMC Med Educ.* 2021;21(1). doi.org/10.1186/s12909-021-02882-7
58. Walter R, Alt L, Hari R, Harris M. What do medical students think are characteristics of a good ultrasound tutor? A qualitative study. *BMC Med Educ.* 2024;24(1). doi.org/10.1186/s12909-024-05789-1
59. College of Radiographers. Education and career framework for the radiography workforce (4th edition). 2022.
60. Health Workforce Australia. National clinical supervision competency resource. 2013.
61. Medical Radiation Practice Board AHPRA. Professional capabilities for medical radiation practitioners. 2020.
62. New Zealand Medical Radiation Technologists Board. Guidelines for Supervisors. 2022.
63. Cormack C, Childs J, Kent F. Competencies required by sonographers teaching ultrasound interprofessionally: a Delphi consensus study. *BMC Med Educ.* 2024;24(1). doi.org/10.1186/s12909-024-05933-x
64. NSW Government. Allied health clinical supervision. 2023.
65. Kinnane P, Kennedy N, Quinton A. Work readiness attributes: Comparative views of clinical supervisors and final year sonography students. *Sonography.* 2021;8(3):82–9. doi.org/10.1002/sono.12274
66. New Zealand Medical Radiation Technologists Board. Competence standards for medical imaging and radiation therapy practitioners in Aotearoa New Zealand. 2024

67. NSW Health South Eastern Sydney Local Health District. Allied health clinical supervision. 2023.
68. Nicholls D, Sweet L, Westerway S, Gibbins A. The key to using a learning or skill acquisition plan. *Australas J Ultrasound Med.* 2014;17(4):141–5. doi.org/10.1002/j.2205-0140.2014.tb00235.x
69. Australian Clinical Supervision Association. Practice support. 2024.
70. Government of Western Australia, WA Country Health Service. Allied health professional supervision policy. 2017.
71. Austin Health. Victorian allied health clinical supervision modules. 2022.
72. Rafiq N, Naz N, Memon R, Shoukat J, Kumari K, Shaikh H, et al. A 360-degree evaluation of the professionalism and communication skills of technologists working in the radiology department of a public sector tertiary care hospital in Karachi, Pakistan. *BMC Med. Educ.* 2024;24(1):1176. doi.org/10.1186/s12909-024-06045-2
73. Sureda E, Chacón-Moscoso S, Sanduvete-Chaves S, Sesé A. A training intervention through a 360° multisource feedback model. *Int. J. Environ. Res. Public Health.* 2021;18(17):9137. doi.org/10.3390/ijerph18179137
74. Emam S, Fakhry S, Abdrabou H. Leaders development program by 360 degree feedback: reflection on head nurses' leadership practices. *BMC Nurs.* 2024;23(1):772. doi.org/10.1186/s12912-024-02395-w
75. ACRRM. Remote Supervision Guidelines. 2022.
76. Bidner A, Bezak E, Parange N. Evaluation of antenatal point-of-care ultrasound training workshops for rural/remote healthcare clinicians: a prospective single cohort study. *BMC Med Educ.* 2022; 22(1).
77. RACGP. Remote Supervision Guidelines for safe and effective general practice training utilising remote supervision. 2022.
78. Hermann M, Hafner C, Scharner V, Hribersek M, Maleczek M, Schmid A, et al. Remote real-time supervision of prehospital point-of-care ultrasound: a feasibility study. *Scand. J. Trauma Resusc. Emerg. Med.* 2022;30(1):23. doi.org/10.1186/s13049-021-00985-0
79. Jensen S, Duvald I, Aagaard R, Primdahl S, Petersen P, Kirkegaard H, et al. Remote real-time ultrasound supervision via commercially available and low-cost tele-ultrasound: a mixed methods study of the practical feasibility and users' acceptability in an emergency department. *J Digit Imag.* 2019; 32(5): 841-8.
80. Medical Council of New Zealand. Working under supervision. 2021.
81. Gardner M, McKinstry C, Perrin B. Enhancing the quality of allied health clinical supervision in a regional setting: An action research study. *AJRH.* 2023;31(2):308–21. doi: 10.1111/ajr.12953.
82. SA Health. Regional local health network allied health professional supervision framework. 2023.
83. Fair Work Commission. Bullying. 2025.
84. Fair Work Ombudsman Australian Government. Bullying in the workplace. 2025.
85. Australian Commission on Safety and Quality in Health Care. My healthcare rights. 2020.
86. ASUM. Discussion Paper on Consent. 2018.
87. ASA. Guide to consent and chaperones for intimate medical ultrasound examinations. 2024.
88. ASA. Clinical guidelines: Consent for medical ultrasound scans. 2024.
89. Brooks L, Manias E, Bloomer M. Culturally sensitive communication in healthcare: A concept analysis. *Collegian.* 2019; 26(3): 383–91. doi.org/10.1016/j.colegn.2018.09.007
90. Matthews R. Additional barriers to clinical supervision for allied health professionals working in regional and remote settings. *Aust. Health Rev.* 2014;38:118. doi.org/10.1071/AH13172
91. Edwards C, Tunny R, Reddan T. Sonographer training pathways: A discussion paper on curriculum design and implementation. *Int. J. Work-Integr. Learn.* 2024. 25(2): 321-36.
92. Health Education and Training Institute. Trainee in difficulty. 2017
93. Hill S, White A. Making the transition from student to newly qualified vascular sonographer: An exploration of the domains of professionalism. *Ultrasound.* 2023. 31(2): 104-10. doi: 10.1177/1742271X221131479
94. ASAR. Accredited student sonographer. 2024.
95. New Zealand Medical Radiation Technologists Board. Add scope of practice. 2024.
96. Australian Association of Social Workers. Supervisors credential. 2023.
97. Clinical Supervision Services. Clinical supervision resources and handouts. 2024
98. Doran G. There's a S.M.A.R.T. way to write management's goals and objectives. *Manage Rev.* 1981;70(11):35–6.
99. Dreyfus H, Dreyfus S. *Mind over machine: the power of human intuition and expertise in the age of the computer.* Oxford: Basil Blackwell; 1986.
100. Molloy E, Boud D, Henderson M. Developing a learning-centred framework for feedback literacy. *Assess Eval. High. Educ.* 2020;45(4):527–40. doi.org/10.1080/02602938.2019.1667955
101. Burgess A, van Diggele C, Roberts C, Mellis C. Feedback in the clinical setting. *BMC Med. Educ.* 2020; 20(2), 460. doi.org/10.1186/s12909-020-02280-5
102. Biggs J, Tang C. Constructive alignment: An outcomes-based approach to teaching anatomy. *Teach. Anat.* 2020;23–30. doi:10.1007/978-3-319-08930-0\_4
103. Algiraigri A. Ten tips for receiving feedback effectively in clinical practice *Med Educ Online.* 2014;19:25141. doi: 10.3402/meo.v19.25141

104. Natesan S, Jordan J, Sheng A, Carmelli G, Barbas B, King A, et al. Feedback in medical education: An evidence-based guide to best practices from the council of residency directors in emergency medicine. *West J. Emerg. Med.* 2023;24(3):479–94. doi: 10.5811/westjem.56544.
105. Burnley K, Kumar K. Sonography education in the clinical setting: The educator and trainee perspective. *Australas. J. Ultrasound Med.* 2019;22(4):279–85. doi:10.1002/ajum.12181.
106. Stanford F. The importance of diversity and inclusion in the healthcare workforce. *J Natl Med Assoc.* 2020;112(3):247–9. doi:10.1016/j.jnma.2020.03.014.
107. Dayaa J, Howard M, Li W, Doctor D. Ask-tell-ask with bidirectional feedback improves feedback culture. *Acad Psychiatry.* 2024; 8(5):420–24. doi:10.1007/s40596-024-01980-0.
108. Wisener K, Hart K, Driessen E, Cuncic C, Veerapen K, Eva K. Upward feedback: Exploring learner perspectives on giving feedback to their teachers. *Perspect Med Educ.* 2023;12(1):99–108. doi:10.5334/pme.818.
109. Tofade T, Elsner J, Haines S. Best practice strategies for effective use of questions as a teaching tool. *Am J Pharm Educ.* 2013;7(77):155 doi: 10.5688/ajpe777155.
110. Gilic F, Dalgarno N, Simpson M. Applying constructive alignment and cognitive load in teaching: Case study involving a foundational family medicine medical school course. *Can Fam Physician.* 2022;68(4):308–10. doi: 10.46747/cfp.6804308.
111. Gibbs G. *Learning by doing: a guide to teaching and learning methods.* Oxford Brookes University. 1988.
112. The University of Edinburgh. *Gibbs' reflective cycle.* 2020.
113. Emery M. Effectiveness of the clinical instructor. *Phys Ther.* 1984 Jul;64(7):1079–83. doi: 10.1093/ptj/64.7.1079.



## Appendix 1: Recommended requirements for accreditation of supervisors

ASA advocates for the development of an accreditation system for clinical supervisors and training sites. Accreditation provides an opportunity to set quality standards for the profession. It recognises supervisors as having an advanced level of experience and skills enabling them to provide a high

standard of quality supervision.<sup>96</sup> Accreditation provides evidence of a sonographer demonstrating the capabilities (skills and knowledge) expected for supervision.<sup>96</sup>

### Participation in supervision for all sonographers

**Scope:** All sonographers, including newly qualified, need to participate in supervision within their scope of practice.

#### Requirements:

- **Newly qualified sonographers:** Engage in supervised practice to ensure they develop the necessary skills and competencies under the guidance of experienced supervisors.
- **Ongoing participation:** All sonographers should participate in supervision activities appropriate to their level of experience and expertise, contributing to a culture of continuous learning and professional development.
- **Scope of capabilities:** Supervision activities should be aligned with the sonographer's current scope of practice, ensuring that they receive relevant and effective guidance.

### Accredited clinical supervisor

**Qualifications:** Must hold one of the following:

- ASAR accredited qualification in medical ultrasound (general, obstetric and gynaecological, breast, cardiac or vascular ultrasound).
- NZ MRTB postgraduate diploma in health science (ultrasound or cardiac ultrasound).

#### Prerequisites

**Clinical:** Should have a minimum of 3 years of clinical experience in diagnostic medical sonography. This ensures that supervisors have substantial practical experience and a deep understanding of the field.

**Micro-credential or foundational supervisory course:** Complete a micro-credential or foundational supervisory course focusing on key areas such as training and assessment, leadership, communication, and ethical practices. This course should equip supervisors with the essential skills and knowledge needed for effective supervision.

**Person-to-person teaching:** The supervisor training program should include at least 10 hours of person-to-person teaching in supervision theory and practice. Of these, at least 50% (or 5 hours) should be specific to training and assessment learning. This hands-on approach ensures that supervisors can apply theoretical knowledge in practical settings.

#### Reaccreditation

To demonstrate an ongoing commitment to and experience in supervisory roles. Every three years the applicant should:

- undergo refresher module
- submit reflective practice documentation
- complete a minimum of 3 hours of specific CPD in supervision
- document a minimum of 200 hours in direct supervision practice over the triennium.
- Provide a logbook of reflective practice

### Advanced accredited clinical supervisor

**Qualifications:** Must hold one of the following:

- ASAR accredited qualification in medical ultrasound (general, obstetric and gynaecological, breast, cardiac or vascular ultrasound).
- NZ MRTB postgraduate diploma in health science (ultrasound or cardiac ultrasound).

In addition

- **Certificate IV in training and assessment (AQF 4):** Complete a Certificate IV in Training and Assessment (AQF 4) as the minimal standard for advanced accreditation. This certification provides supervisors with the skills needed to effectively train and assess trainees.

Alternatively, or in addition to the above

- **Graduate certificate in supervision (AQF 8):** This program includes elements such as:
  - **Healthcare leadership:** Developing leadership skills specific to the healthcare environment.
  - **Strategic management:** Learning strategic management practices to improve clinical operations and team performance.

**Additional training:** Additional beneficial training includes:

- **Certificate IV in leadership and management:** Focuses on developing leadership and management skills essential for supervising teams and managing clinical operations.
- **Conflict resolution:** Training in conflict resolution techniques to handle disputes and maintain a harmonious work environment.
- **Education techniques:** Advanced education techniques to enhance teaching and mentoring capabilities.
- **Advanced ethical/legal training:** In-depth training on ethical and legal issues in clinical supervision and patient care.

#### Prerequisites

**Clinical:** Should have a minimum of 5 years of clinical experience in diagnostic medical sonography, with at least 3 years of supervisory experience within the clinical environment. This ensures that supervisors have extensive practical experience and a proven record in supervision.

#### Reaccreditation

To demonstrate an ongoing commitment to and experience in supervisory roles. Every three years the applicant should:

- undergo refresher module
- submit reflective practice documentation
- complete a minimum of 3 hours of specific CPD in supervision
- document a minimum of 200 hours in direct supervision practice over the triennium.

## Training course content

Prior to accreditation, supervisors can undergo training that covers essential content areas or complete recognised higher qualifications in recognised domains. It is recommended that supervisors undergo

refresher modules, submit reflective practice documentation, and complete specific CPD in supervision for reaccreditation every three years.

Supervisors can undergo training that covers essential content areas. Possible beneficial training aspects include:

|  |  |
|--|--|
| <b>Effective teaching</b>                          | Strategies and techniques for effective teaching in clinical settings.   |
| <b>Learning styles</b>                             | Recognising and accommodating various learning styles to enhance trainee engagement and retention.   |
| <b>Learning plan</b>                               | Developing and implementing individualised learning plans for trainees.  |
| <b>Training programs</b>                           | Designing and implementing comprehensive learning plans and agreements.  |
| <b>Cultural awareness and safety training</b>      | Providing inclusive education and understanding diverse cultural backgrounds.  |
| <b>Competency and assessment</b>                   | Methods for assessing trainee competency and providing constructive feedback.  |
| <b>Communication skills and effective feedback</b> | Enhancing communication skills and delivering effective feedback to support trainee development.   |
| <b>Reflective learning</b>                         | Encouraging reflective practice to promote continuous learning and improvement. <sup>62</sup>  |
| <b>Managing difficult situations</b>               | Techniques for handling challenging conversations and situations with trainees and colleagues.   |
| <b>Conflict resolution</b>                         | Strategies for managing and resolving conflicts in the workplace.  |
| <b>Well-being of supervisors and trainees</b>      | Understanding the importance of well-being, recognising signs of burnout, and implementing strategies to support mental health and resilience. |
| <b>Educational psychology</b>                      | Principles of education psychology to enhance trainee motivation and learning.   |
| <b>Role of a supervisor</b>                        | Understanding the responsibilities and expectations of a supervisor.   |
| <b>Legal and ethical responsibilities</b>          | Understanding the legal and ethical considerations in supervision.   |
| <b>Supervision evaluation</b>                      | Regularly evaluating the supervision process to identify areas for improvement.  |

## Appendix 2: Template learning plan

| Name:   |  |   | Date:  |   |
|---|--|---|--|---|
| <p><b>Learning goals:</b></p> <p>What skills and knowledge do I need to achieve competence?</p> <p><i><b>Example: 1.</b> Assist with a thyroid nodule FNA</i></p> | <p><b>Current status:</b></p> <p>What level of skills and knowledge do I have now with respect to this learning goal?</p> <p><i>I have performed 15 thyroid examinations independently. I have passed a clinical assessment by my supervisor</i></p> | <p><b>Learning strategies:</b></p> <p>How will I reach this learning goal?</p> <ul style="list-style-type: none"> <li>• <i>Observe an experienced sonographer; assist the sonologist with the FNA</i></li> <li>• <i>Sonographer articulates what they are doing during the procedure</i></li> <li>• <i>Access the internet to see if there are useful video tutorials</i></li> <li>• <i>Speak to nursing staff about the equipment needed for the procedure and a tutorial on aseptic technique</i></li> <li>• <i>Discuss my role in the technique with the sonologist performing the task</i></li> <li>• <i>Assist the sonologist with the FNA under ultrasound guidance, with clear guidance from the sonologist</i></li> </ul> | <p><b>Required resources:</b></p> <p>What resources do I need to achieve this learning goal?</p> <ul style="list-style-type: none"> <li>• <i>Review the departmental protocol</i></li> <li>• <i>Access to the sonologist to discuss the technique</i></li> <li>• <i>Access to nursing staff</i></li> <li>• <i>Video tutorial if available</i></li> </ul> | <p><b>Key performance indicators:</b></p> <p>How can I demonstrate to myself and others that I have achieved this goal?</p> <p><i>Sonologist is satisfied that the ultrasound guidance was safely and competently performed</i></p> |

## Appendix 3: Template learning agreement

The following template outlines the expectations and goals for both the supervisor and the trainee.<sup>97</sup>

|  |   |
|--|---|
| <b>Workplace:</b>  | <b>Date:</b> Date the meeting was held to draft this document   |
| <b>Trainee:</b>  | <b>Supervisor:</b>  |
| <b>Nominated 3rd Person</b> e.g. team leader, independent colleague  |   |
| <b>Supervision period:</b> Start date:   | Finish date:  |
| <b>Documentation:</b> Who will document the content of the meeting? The meeting record should be duplicated so both parties hold a copy.   |   |
| <b>Meetings:</b> How often will you have meetings? How long will they be? Allocate times in advance.   |   |
| <b>Agreed content of supervision:</b> Plan daily, weekly, monthly goals to coincide with course subjects, daily verbal feedback, monthly written feedback using the feedback template, keep a logbook of all studies, hours of one-on-one training per day, frequency and duration of tutorials, case study reviews, timing and frequency of formative clinical assessments  |   |
| <b>Supervisor expectations:</b> Follow departmental protocols, ask when you are not sure about something   | <b>Trainee expectations:</b> Give clear guidance on what is expected on a daily/weekly basis, provide assistance when in difficulty |
| <b>Trainee concerns (examples):</b> Breaking bad news, how to tell patients of a missed miscarriage, missing pathology, working with staff who all do things differently (keeping everyone happy)  |   |
| <b>Clinical assessments:</b> How often will these be undertaken? What format will these assessments take? e.g. patient examinations, image interpretation, case study quizzes  |   |
| <b>Evaluation of supervision:</b> What is the evaluation process? How often will this process happen?  |   |
| <b>Confidentiality:</b> A statement of confidentiality can be included. For example: The content of the supervision meeting is confidential between the parties, except when there are issues regarding patient care and safety. In these instances, this information will be shared with the appropriate personnel. In terms of trainee performance, an agreement needs to be reached regarding the parties involved in this discussion and whether the supervisor can communicate directly with the university. Please review privacy policies for your organisation and the educational course provider involved. |   |
| <b>Signature:</b>  | <b>Signature:</b>   |
| Supervisor: _____  | Trainee: _____  |
| Date: _____  | Date: _____   |

Note: This learning agreement is not a legally binding document. It is purely to promote discussion and clearly outline the roles and responsibilities of both parties.

## Appendix 4: Establishing goals and objectives

Setting clear and achievable goals is crucial for the success of the supervision process. Goals should be well-defined and aligned with both the educational course provider’s requirements and the

workplace needs. Using the **SMART** criteria (**S**pecific, **M**easurable, **A**chievable, **R**ealistic, **T**imely) helps to ensure that goals are clear and attainable.<sup>2,98</sup> Key steps in establishing goals and objectives.

### Define learning goals

- **Specific:** Clearly state what the trainee needs to achieve. For example, “Develop proficiency in performing abdominal ultrasound examinations.”
- **Measurable:** Determine how progress will be measured. For instance, “Complete 20 supervised abdominal ultrasounds within this training period.”
- **Achievable:** Ensure the goal is realistic given the trainee’s current skills and resources. For example, “Competently complete an abdomen ultrasound on an outpatient within three months.”
- **Realistic:** Set goals that are challenging yet attainable. For instance, “Improve visualisation of the pancreas by the end of these three months.”
- **Timely:** Establish a clear timeframe for achieving the goal. For example, “Complete the goal by the end of this semester.”

### Develop a learning plan

- **Short-term goals:** Identify immediate objectives that can be achieved in the near future. For instance, “Learn where the colour, power and M-mode controls are on the ultrasound machine by the end of this week.”
- **Long-term goals:** Set broader objectives that will be achieved over a longer period. For example, “Achieve competency in abdomen, renal and DVT ultrasound examinations by the end of this semester.”

### Mutual agreement

- **Collaborative goal setting:** Involved both the supervisor and the trainee in the goal setting process to ensure mutual agreement and understanding. This fosters a sense of ownership and commitment from the trainee.
- **Regular review:** Schedule regular check-ins to review progress and adjust goals as needed. This helps keep the trainee on track and allows for timely interventions if necessary.

### SMART goals template

|                   |   |
|-------------------|---|
| <b>Specific</b>   | What do you want to achieve and who needs to be involved? |
| <b>Measurable</b> | How will you track progress and measure success?          |
| <b>Achievable</b> | Is the goal realistic and within reach?                   |
| <b>Realistic</b>  | Does the goal align with your objectives and priorities?  |
| <b>Timely</b>     | What is the timeframe for achieving the goal?             |

## Appendix 5: Clinical assessment

Clinical assessment is a crucial component of the supervision process, serving as more than just a test of trainee progress. It drives learning and should be an integral part of the clinical supervision program.

Effective assessment ensures that trainees develop the necessary skills and knowledge to perform their duties competently.

### Key elements of clinical assessment

#### Purpose of clinical assessment

- **Learning and development:** Assessments are designed to support the trainee’s learning and professional development.
- **Competency evaluation:** They help determine whether the trainee has acquired the skills and knowledge required for their role.

#### Types of clinical assessment

- **Formative assessment:** Conducted during the learning process to provide ongoing feedback and opportunities for improvement before the final evaluation.
- **Summative assessment:** A formal evaluation at the end of a training period to measure whether learning outcomes have been achieved and to determine if the trainee should progress.

#### Formative assessment

- **Regular feedback:** Provide continuous feedback to help trainees understand their progress and areas needing improvement.
- **Responsibility:** Encourage trainees to take greater responsibility for their work by thinking through tasks, considering strategies, and ensuring all aspects of the examination are completed.
- **Practical application:** Use real patient cases for practice, while ensuring patient safety and care are not compromised.
- **Competency-based:** Assessments should cover a range of skills, knowledge, experience, and professional behaviour.

#### Summative assessment

- **Formal evaluation:** Conducted at the end of a training period, such as a subject or course, to determine if the trainee has met the required learning outcomes.
- **Grading:** Trainees receive marks, and an overall grade based on their performance.

#### Assessment methods

- **Practical assessments:** Evaluate the trainee’s ability to perform clinical tasks and procedures.
- **Theoretical assessments:** Test the trainee’s understanding of relevant knowledge and concepts.
- **Case studies:** Use past cases to assess the trainee’s analytical and decision-making skills.
- **Image interpretation:** Assess the trainee’s ability to interpret ultrasound images accurately.

## Clinical assessment process

|                                 |  |  |
|---------------------------------|--|--|
| 1 <b>Setting expectations</b>   | <b>Clear criteria:</b> Ensure the trainee understands the expected skills and knowledge for their learning stage.                | <b>Defined standards:</b> Use the Dreyfus model to outline the characteristics of different competency levels.                                 |
| 2 <b>Conducting assessments</b> | <b>Structure approach:</b> Follow a structured format for assessments to ensure consistency and fairness.                        | <b>Documentation:</b> keep detailed of assessments to track progress and identify areas for improvement.                                       |
| 3 <b>Provide feedback</b>       | <b>Timely and specific:</b> Offer feedback promptly after assessments, focusing on specific strengths and areas for improvement. | <b>Constructive:</b> Ensure feedback is constructive and aimed at helping the trainee develop their skills.                                    |
| 4 <b>Regular review</b>         | <b>Ongoing evaluation:</b> Regularly review the trainee's progress and adjust the learning plan as needed.                       | <b>Collaborative process:</b> Involved both the supervisor and the trainee in the review process to ensure mutual understanding and agreement. |

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## Dreyfus Model of Skill Acquisition<sup>1</sup>

The Dreyfus Model provides a means of assessing and supporting progress in the development of skills and core competencies. It also provides a definition of an acceptable level for the assessment of competency or capability.<sup>1,99</sup> The table below has been modified from the Dreyfus model, outlining the characteristics for the different competency levels.

- **Novice:** Minimal knowledge requires close supervision.
- **Advanced beginner:** Working knowledge, able to perform straightforward tasks with some supervision.
- **Competent:** Depth of understanding, able to perform most tasks independently.
- **Proficient:** Good working knowledge, able to manage complex situations holistically.
- **Expert:** Authoritative knowledge, able to innovate and manage complex situations with ease.

| Level                    | Knowledge  | Standard of work   | Autonomy  | Coping with complexity  | Perception of context  |
|--------------------------|--|--|---|---|--|
| <b>Novice</b>            | Minimal or 'textbook' knowledge without connecting it to practice                          | Unlikely to be satisfactory unless closely supervised                  | Needs close supervision and instruction   | Little or no conception of dealing with complexity  | Tends to see actions in isolation  |
| <b>Advanced beginner</b> | Working knowledge of key aspects of practice   | Straightforward tasks likely to be completed to an acceptable standard | Able to achieve some steps using own judgement but supervision needed for overall task                | Appreciates complex situations but only able to achieve partial resolution                        | Sees actions as a series of steps  |
| <b>Competent</b>         | Depth of understanding of discipline and area of practice                                  | Fit for purpose though may lack refinement                             | Able to achieve most tasks using own judgement  | Appreciates complex situations through deliberate analysis and planning                           | Sees actions at least partially in terms of longer-term goals                    |
| <b>Proficient</b>        | Good working and background knowledge of areas of practice                                 | Full acceptable standard achieved routinely                            | Able to take full responsibility for own work (and that of others where applicable)                   | Deals with complex situations holistically; decision-making more confident                        | See overall 'picture' and how individual actions fit within it                   |
| <b>Expert</b>            | Authoritative knowledge of discipline and deep tacit understanding across area of practice | Excellence achieved with relative ease                                 | Able to take full responsibility for going beyond existing standards and creating own interpretations | Holistic grasp of complex situations; moves between intuitive and analytical approaches with ease | See overall 'picture' and alternative approaches; vision of what may be possible |

## Template: Clinical assessment

| <b>Date:</b>   | <b>Trainee:</b>    |              |                    |          |
|--|--------------------|--------------|--------------------|----------|
| <b>Trainee level:</b> Novice/Beginner/Advanced Stage:  |                    |              |                    |          |
| <b>Supervisor:</b>   |                    |              |                    |          |
| Note: For the novice trainee to perform a full study, sections can be marked not applicable or altered accordingly. Ensure the expectations of the assessment are clearly defined before commencement. |                    |              |                    |          |
| Skill  | Above satisfactory | Satisfactory | Below satisfactory | Comments |
| Checks request, understands request  |                    |              |                    |          |
| Patient identity check, patient history, informed consent, explanation of study given  |                    |              |                    |          |
| Communicates effectively with the patient – friendly manner, uses appropriate language   |                    |              |                    |          |
| Introduces self  |                    |              |                    |          |
| ‘Knobology’ – knows how to use the ultrasound machine well   |                    |              |                    |          |
| Image optimisation   |                    |              |                    |          |
| Scan performance – were all the areas of interest adequately visualised and assessed with protocol?  |                    |              |                    |          |
| Image documentation – was the study appropriately recorded with the correct measurements?  |                    |              |                    |          |
| Checks and discusses the study with the appropriate person – supervisor/ sonologist / radiologist  |                    |              |                    |          |
| Discharges the patient appropriately on completion of the study  |                    |              |                    |          |
| Recognises the limitations of the examination and how the scan results fit within the clinical context   |                    |              |                    |          |
| Seeks assistance when complexity is beyond own experience, or when further expertise is needed   |                    |              |                    |          |
| Understands the clinical significance of scan results  |                    |              |                    |          |
| Supervisor comments:   |                    |              |                    |          |
| Trainee comments:  |                    |              |                    |          |

## Appendix 6: Providing feedback to the trainee

Giving feedback is essential for the development and performance of trainees. Effective feedback helps trainees understand their progress,

identify areas for improvement, and build confidence.<sup>11,14,23,25,26</sup> Here are key steps to providing constructive feedback:

### Specific and clear

**Detail-oriented:** Provide detailed and precise feedback. Avoid vague generalisations.<sup>100,101</sup>

**Example:** Instead of saying “Good job,” specify what was done well, such as “Your use of the decubitus position was effective in visualising the kidney.”

### Constructive guidance

**Future-focused:** Aim to guide future actions and improvements.<sup>102</sup>

**Example:** “Next time, try adjusting the gain settings to enhance image clarity.”

### Balanced

**Positive and negative:** Include both positive reinforcement and constructive criticism.

**Example:** “You handled the patient interaction well, but let’s work on improving your image documentation.”

### Timely

**Prompt delivery:** Give feedback promptly to ensure it is relevant and has an immediate impact.<sup>2,14,34,48</sup>

**Example:** Provide feedback immediately after a scan session while the experience is still fresh.

### Actionable

**Specific suggestions:** Offer specific steps or suggestions for improvement.<sup>100,101</sup>

**Example:** “Focus on maintaining a steady hand to reduce image blurring.”

### Dialogic

**Two-Way communication:** Encourage a two-way dialogue and self-reflection.<sup>103-105</sup>

**Example:** Ask the trainee how they felt about their performance and what they think could be improved.

### Context-sensitive

**Tailored feedback:** Tailor feedback to the specific context and individual receiving it.<sup>106</sup>

**Example:** Consider the trainee’s learning style and current skill level when providing feedback.

### Steps to provide effective feedback

#### Create a feedback schedule

- **Routine feedback:** Establish a mutually agreed-upon schedule for regular feedback sessions.<sup>101,105,107,108</sup>
- **Consistency:** This provides a consistent, safe space for setting and assessing goals and developing the trainee-supervisor relationship.

#### Ask for feedback on your role

- **Encourage reflection:** Ask the trainee for feedback on your role as a supervisor. This encourages them to reflect on feedback delivery methods and purpose.<sup>103,108</sup>
- **Bidirectional dialogue:** A positive feedback culture encourages open dialogue and greater personal investment from the trainee.

|   |  |
|---|--|
| <b>Prompt the trainee to reflect</b>        | <ul style="list-style-type: none"> <li>• <b>Self-reflection:</b> Encourage the trainee to reflect on their performance by asking questions such as, “What challenges are you experiencing?” or “What are you doing well?”</li> <li>• <b>Insight and awareness:</b> This enhances the trainee’s self-awareness and responsibility for their learning progress.<sup>100,103,107,109</sup></li> </ul> |
| <b>Provide your own reflection</b>          | <ul style="list-style-type: none"> <li>• <b>Be Specific:</b> Think through what has been said and decide what you hope to achieve through your feedback.<sup>14,104,110</sup> Use precise, neutral language and specify relevant examples.<sup>107</sup></li> <li>• <b>Example:</b> “I see what you are saying here, and I have also noticed...”</li> </ul>  |
| <b>Provide suggestions &amp; time frame</b> | <ul style="list-style-type: none"> <li>• <b>Actionable goals:</b> Give specific examples of what the trainee should focus on and provide a time frame for assessing progress.<sup>2,98</sup></li> <li>• <b>SMART objectives:</b> Use the SMART framework to set objectives that are Specific, Measurable, Achievable, Relevant, and Time-bound.</li> </ul>   |
| <b>Clarify understanding</b>                | <ul style="list-style-type: none"> <li>• <b>Restate key points:</b> Ask the trainee to restate their understanding of the feedback to ensure clarity.<sup>104</sup></li> <li>• <b>Example:</b> “Can you tell me again what we have decided?”</li> </ul>  |
| <b>Make firm plans</b>                      | <ul style="list-style-type: none"> <li>• <b>Follow-up:</b> Make firm plans together, including a timeline, to meet and discuss progress.<sup>101,105,107,108 104</sup></li> </ul>  |
| <b>Guidelines for best practice</b>         |  |
| <b>Avoid jokes</b>                          | Keep the feedback professional and focused. <sup>2,34,48</sup>   |
| <b>Timing</b>                               | Do not give feedback when either party is stressed or emotional. <sup>2,34,48</sup>  |
| <b>Positive focus</b>                       | Emphasise positive feedback and avoid dampening it with negative statements. <sup>103–105</sup>  |
| <b>Public praise</b>                        | Praise trainees in the presence of patients and colleagues.  |
| <b>Private criticism</b>                    | Give constructive criticism in private.  |
| <b>Invite comments</b>                      | Encourage trainees to ask questions and provide their input. <sup>101</sup>  |

## Template: Feedback

|  |              |
|--|--------------|
| <b>Supervisor:</b>                                   | <b>Date:</b> |
| <b>Examination:</b>                                  |              |
| What were the goals for the examination?             |              |
| What did they do well?                               |              |
| What areas need improvement?                         |              |
| Suggestions on how the improvements can be achieved? |              |
| <b>Trainee:</b>                                      | <b>Date:</b> |
| <b>Examination:</b>                                  |              |
| What were the goals or learning objectives?          |              |
| What do you think you did well?                      |              |
| What areas do you think you need to improve on?      |              |
| Questions or comments                                |              |

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## Appendix 7: Reflective practice

Reflective practice is a critical process that enables healthcare professionals to learn from their experiences, expand their knowledge base, and continuously improve their clinical skills. It involves a structured approach to analysing one's actions and decisions to gain

deeper insights and enhance future performance.<sup>2,11,55,70</sup> Reflective practice is one of the most important skills for health professionals to develop. It allows trainee sonographers to:

|  |  |
|--|--|
| <b>Identify strengths and weaknesses</b> | Recognise areas of proficiency and those needing improvement. <sup>2</sup>                     |
| <b>Enhance clinical skills</b>           | Learn from challenging situations and develop confidence and competence. <sup>2,11,55,70</sup> |
| <b>Develop clinical reasoning</b>        | Improve decision-making skills to ensure safe and effective patient care. <sup>39,62</sup>     |
| <b>Promote professional growth</b>       | Foster a culture of lifelong learning and continuous professional development.                 |

A common model of reflection is Gibbs reflective cycle which can lead to a deeper level of thought and reflection.<sup>111,112</sup> This framework can be

used to review experiences allowing the trainee to learn and plan from experiences.<sup>112</sup> Gibbs reflective cycle is described below:

|  |  |
|--|--|
| <b>Description:</b> Describe the situation in detail.  | What happened? When and where? Who was present? What did you do and what did other people do? What was the outcome? What did you want to happen?   |
| <b>Feelings:</b> Explore any feelings and thoughts you had during the experience and how they may have impacted the experience.                                      | What were you feeling during the situation? What were you feeling before and after the situation? What do you think other people were feeling about the situation? What were you thinking during the situation? What do you think about the situation now? |
| <b>Evaluation:</b> Evaluate what worked and what did not work in the situation.  | What was good and about the experience? What went well? What did not go so well?   |
| <b>Analysis:</b> Chance to make sense of what happened. Extract meaning from the situation.  | Why did things go well? Why didn't it go well? What sense can I make of the situation? What knowledge can help me understand the situation?  |
| <b>Conclusion:</b> Make conclusions about what happened, summarise your learning and highlight what changes to your actions could improve the outcome in the future. | What did I learn from this situation? How could this have been a more positive situation for everyone involved? What skills do I need to develop for me to handle a situation like this better? What else could I have done?                               |
| <b>Action Plan:</b> Plan for what you would do differently in a similar situation  | If I had to do the same thing again, what would I do differently? How will I develop the required skills I need? How can I make sure that I can act differently next time?   |

## Appendix 8: Addressing underperformance

Managing underperforming trainees can be challenging and requires a thoughtful, supportive approach. Addressing performance issues early

and constructively is crucial to ensure the trainee’s development and maintain high standards of patient care.

### Early Identification and Intervention

- **Recognise issues early:** Identify performance issues as soon as they arise to prevent them from escalating.
- **Non-confrontational approach:** Raise concerns in a non-confrontational manner to avoid creating anxiety or defensiveness in the trainee.<sup>92</sup> If appropriate, contact the course provider early to discuss a joint plan of action.

### Relationship with educational course provider

- **Collaborative approach:** Maintain open communication with the educational course provider to ensure a collaborative approach to managing underperformance. This includes sharing relevant information about the trainee’s progress and any concerns that arise.
- **Joint action plans:** Work together with the educational course provider to develop joint action plans for addressing performance issues. This ensures that both the clinical and educational aspects of the trainee’s development are aligned.
- **Regular updates:** Provide regular updates to the educational course provider on the trainee’s progress and any interventions implemented. This helps ensure that the educational course provider is aware of the trainee’s status and can offer additional support if needed.
- **Access to resources:** Leverage the resources and expertise of the educational course provider to support the trainee’s development. This may include access to additional training materials, workshops, or counselling services.

### Regular meetings and documentation

- **Consistent check-ins:** Schedule regular meetings to discuss progress and address any issues promptly.
- **Document concerns:** Keep detailed records of performance issues and the steps taken to address them.<sup>92</sup> This documentation provides evidence and helps track improvements.

### Understanding personal issues

- **Personal considerations:** Consider whether personal issues may be affecting the trainee’s performance.<sup>92</sup> Offer support and understanding, even if the trainee is not willing to share details.
- **Supportive environment:** Create a supportive environment where trainees feel comfortable discussing their challenges.

### Positive reinforcement

- **Encouragement:** Provide positive reinforcement for what the trainee does well. Highlight their strengths and achievements to boost confidence.
- **Balanced feedback:** Balance constructive criticism with positive feedback to maintain motivation.

|  |   |
|--|---|
| <b>One-on-one training and tutorials</b> | <ul style="list-style-type: none"> <li>• <b>Focused training:</b> Offer more one-on-one supervised training sessions to address specific areas of difficulty.</li> <li>• <b>Targeted tutorials:</b> Introduce tutorials focused on the trainee's areas needing improvement.</li> </ul>  |
| <b>Reflective practice</b>               | <ul style="list-style-type: none"> <li>• <b>Encourage reflection:</b> Increase the use of reflective practice exercises to help the trainee gain insights into their performance and identify areas for improvement.</li> <li>• <b>Reflective journals:</b> Suggest maintaining a reflective journal to document experiences and reflections.</li> </ul>  |
| <b>Re-evaluating learning plans</b>      | <ul style="list-style-type: none"> <li>• <b>Adjust goals:</b> Re-evaluate the original learning plan and adjust goals to respond to identified issues. Ensure goals are realistic and achievable.</li> <li>• <b>SMART goals:</b> Use SMART goals (Specific, Measurable, Achievable, Realistic, Timely) to set clear and attainable objectives.</li> </ul>   |
| <b>Utilising other resources</b>         | <ul style="list-style-type: none"> <li>• <b>Alternative supervisors:</b> If personality differences or other issues persist, consider having the trainee spend more time with other sonographers or refer them to another supervisor.</li> <li>• <b>Independent assessment:</b> Have the trainee reassessed by an experienced independent sonographer to provide an objective evaluation.<sup>92</sup></li> </ul> |



## Appendix 9: Orientation flowchart for new trainees

### Preparation Stage

Review trainee's background, learning objectives, and placement requirements.

Ensure compliance with workplace policies (e.g. confidentiality, safety).

This may be the role of the supervisor, senior sonographer, practice manager etc. and the appropriate person should be scheduled to meet the trainee

Prepare an induction schedule.

---

### Orientation Day

#### Welcome and Introductions

Introduce the student to the team and key stakeholders.

Provide an overview of the practice's mission, values, and culture.

#### Tour of the Department/Site

Explain key areas and the workflow: ultrasound examination rooms, reporting station, bathrooms, emergency exits.

Highlight infection control and safety procedures.

---

### Employer Compliance Requirements

Ensure the trainee has completed:

Workplace health and safety (WHS) induction.

Patient confidentiality and data protection training.

Required vaccinations and health screenings.

Trainees should have an overview and knowledge of workplace policies and ultrasound protocols, with access to these throughout their training on site.

---

### Role and Expectations

Discuss scope of practice for the trainee (adapted to level).

Clarify supervision levels and escalation pathways.

Set expectations for professional behaviour and attire.

Name badge.

Introduction to patient including the need for supervision. An example introduction is:

*"Hi [Patient's Name], my name is [Trainees Name], and I'm a trainee sonographer currently undergoing supervised training here at [Facility Name]. I'll be assisting with your ultrasound today under the close guidance of my supervising sonographer, [Supervisor's Name], who will be overseeing the entire process to ensure everything is conducted to the highest standard. I want to assure you that your comfort and well-being are my top priorities, and if you have any questions or concerns at any point, please don't hesitate to let me know. Thank you for allowing me to be a part of your care today."*

### **Hands-on Training & Observation**

Shadow experienced sonographers to understand workflow.  
Participate in supervised patient interactions.  
Receive feedback on sonography techniques, critical thinking and protocols.

---

### **Regular Check-ins and Feedback**

Schedule progress meetings to review trainee's development.  
Address any challenges or additional learning needs.  
Document progress in line with employer and educational institution requirements.

---

### **Final Evaluation & Feedback**

Conduct a final review of the trainee's performance.  
Provide constructive feedback and advice.  
Complete required paperwork and signoffs for placement completion.

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## Appendix 10: Template evaluating supervision

| The following template outlines the skills of supervisors <sup>113</sup> | Always | Most of the time | Some of the time | Never |  | Always | Most of the time | Some of the time | Never |
|--|--------|------------------|------------------|-------|--|--------|------------------|------------------|-------|
| <b>Supervisor skills</b>   |        |                  |                  |       |  |        |                  |                  |       |
| Communication  |        |                  |                  |       | Serves as a role model   |        |                  |                  |       |
| Is an active listener  |        |                  |                  |       | Demonstrates practical applications of knowledge and skills  |        |                  |                  |       |
| Encourages dialogue and questions  |        |                  |                  |       | Manages time well and demonstrates leadership  |        |                  |                  |       |
| Communicates in a non-threatening manner                                 |        |                  |                  |       | Supervision (teaching, instruction, evaluation)  |        |                  |                  |       |
| Openly and honestly discusses perceptions and issues                     |        |                  |                  |       | Works with the trainee to develop goals  |        |                  |                  |       |
| Supervisory relationship   |        |                  |                  |       | Allows progressive and appropriate independence  |        |                  |                  |       |
| Creates a comfortable learning environment                               |        |                  |                  |       | Assesses progress systematically   |        |                  |                  |       |
| Provides appropriate support for concerns, frustrations, and anxieties   |        |                  |                  |       | Provides frequent and constructive feedback  |        |                  |                  |       |
| Demonstrates positive regard for the trainee as a person                 |        |                  |                  |       | Questions and coaches to facilitate learning   |        |                  |                  |       |
| Is accessible  |        |                  |                  |       | Identifies discrepancies in trainee's performance  |        |                  |                  |       |
| Ensures regular meetings are held as per the learning agreement          |        |                  |                  |       | Accurate in documenting trainee's performance  |        |                  |                  |       |
| Professional skills  |        |                  |                  |       | Provides the trainee sufficient time to practise scanning  |        |                  |                  |       |
| Displays competence  |        |                  |                  |       | Provides adequate one-on-one supervision during a scan   |        |                  |                  |       |
| Sensitive to patient needs   |        |                  |                  |       | Are the goals and objectives within the learning agreement or learning plan being met?   |        |                  |                  |       |
| Demonstrates professional behaviour                                      |        |                  |                  |       | Are your expectations being met/not met by your supervisor?  |        |                  |                  |       |
| Explains the basis of actions and clinical reasoning                     |        |                  |                  |       | What areas of your supervision are you concerned about?<br>What modifications to the current supervision would you benefit from? |        |                  |                  |       |



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