



10680NAT Graduate Diploma in Medical Ultrasound
Recognition of Prior Learning (RPL)

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Introduction

The Australian Institute of Healthcare Education (AIHE) uses an RPL process to assess these students' knowledge and/or skills within the Allied Health environment, to be at or above the level of the qualification being delivered.

As part of this, the applicant will be required to complete formal documentation to support their application and provide valid evidence of experience in the health and community service field.

Areas of deficiency at this level will need to be undertaken as formal study. Any student wishing to apply for exemption from any units of competency are also required to apply for RPL clearly stating which units of competency RPL is being applied for.

In order to achieve RPL for any unit of competency **all** relevant units of study must have been successfully completed relevant to that unit of competency as outlined in the table below.

The decision for granting of RPL lies ultimately with the CEO and Assessor for the course, under the process of the RPL application.

Process

1. Complete the attached Application Form and Self- Assessment questions
2. Attach all evidence required as outlined.
3. Send an email to info@aihe.edu.au with all areas in the attached Application Form completed at a minimum of two (2) months prior to the enrolment period for the course. NOTE: Only completed applications will be reviewed. Incomplete applications will take longer, and the student may miss out on a placement for that term.
4. Have a discussion with a qualified AIHE Assessor.
5. If you tick all the criteria, then your experience and qualifications will be recognised.

PLEASE NOTE:

Late applications will NOT be accepted. The RPL process is lengthy for both student and assessor and therefore sufficient time to determine RPL is required.

Other institutions may offer similar qualifications, however only AIHE offer these particular units and therefore any previous work completed elsewhere will need to be mapped by the student and assessor to ensure that they are all completely covered. There is a fee for each unit for RPL which must be covered as the RPL process can be lengthy.

Please contact AIHE for more details if required.

FAQ's

Eligibility Not everyone may be eligible for all areas of study. As a recognised Training Provider, AIHE ensure that all legal requirements are adhered to for their students in order that their qualifications are of high standing in the industry.

Currency. Any evidence you submit as part of your application must confirm that your skills and knowledge are current (last 3-5 years)

Qualifications/ certificates. Copies of original certificates or other documents must be certified by a Justice of the Peace (JP). Alternatively, you may bring the original documentation to be sighted by AIHE staff who can then certify your copies. If you are seeking credit for your overseas qualifications, you should provide certified translations of any qualifications or documents.

If you need to translate documents, you may call the NSW Community Relations Commission. The Commonwealth Department of Immigration and Citizenship has a free translation service for certain documents, for migrants who have been Australian permanent residents for less than two years.

How long before I know? AIHE will review the documentation you have supplied within 14 days of receiving your application. You will be contacted and may need to answer some questions to support your application. It may take up to two months to review all documents, ask questions, contact supervisors etc. If all details are not complete, the process will take longer. It is the responsibility of the student to have all documentation completely ready before sending.

Competent? If your evidence is sufficient for granting of RPL you will be notified as such within 14 - 28 days *after* all evidence has been reviewed.

More evidence needed? If your evidence is insufficient for granting of RPL the Assessor will contact you with two options:

- a. Request for additional evidence and a time frame requiring this evidence to be submitted.
- b. Refusal to grant RPL with an explanation as to the reasons the RPL was not granted.

If you are unsatisfied with the outcome of this process you are eligible to appeal this decision under the academic grievance policy which is available in the Student Information Guide.

Application Form

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| Course Name | 10680NAT Graduate Diploma in Medical Ultrasound | | |
| Surname | | | |
| First Name | | DATE | |
| Address | | | |
| State | | Postcode | |
| Telephone | | Mobile Number | |
| Email address | | | |
| Signature | | | |

What do I need?

1. Evidence for each unit

Each of the following units should be supported through matching the performance criteria within each unit to the qualification or workplace experience you have.

You will need to have evidence (proof) for of each of the following.

1. **Performance of the tasks** required for each Unit of Competence as outlined in the Appendix. Proof will be workplace evidence such as:
 - a. A Supervisors/ Referees Report outlining all performance areas with agreement that you have completed these. (note: You will need to list each of the performance areas and ask your referee to read and agree you have completed all these. These are listed in the Appendix) Where this cannot be supplied, you may be asked to complete assessment workplace activities for each unit or work-placement.
2. **Knowledge evidence** required for each Unit of Competence as outlined in the Appendix. Proof of evidence will be:
 - a. A prior qualification from another institution which supports this.
 - b. Professional Development Certificates or similar.
 - c. Questions answered for each of the knowledge areas (your assessor will ask for proof you have the knowledge outlined in the Appendix in written or oral form. You may outline this in a separate document as part of your evidence)
3. **Assessment conditions** These are outlined in the appendix and must be met.

Example case study

You work in a Clinic and already complete some of the tasks. You already have a Certificate III in Allied health Assistance and can also ask your manager to support evidence of some of the areas. You have also completed some professional development activities.

| CODE | | UNIT NAME | QUALIFICATION OR CERTIFICATE NAME Knowledge evidence | WORKPLACE Performance evidence | Am I Eligible for RPL? |
|---------------|---|-----------|--|---|------------------------|
| USGBDU80 1 | Prepare for a diagnostic medical ultrasound procedure | No | workplace evidence - <i>I have completed the AIHE Cert III in Allied Health Assistance unit and also completed some workplace activities to support this unit.</i> Referee report- <i>I can supply a referee's report against each of the performance areas which has been listed</i> | Possibly, your assessor will ask you some questions | |
| USGBDU80 2 | Perform a basic diagnostic medical ultrasound procedure | No | No | No | |

My supporting evidence application

| CODE UNIT NAME | | Qualification or Certificate? Knowledge evidence | Workplace/ Performance evidence? Eg; I have reviewed the performance evidence and outlined what I have done and when and where. Eg; My supervisor reviewed all the performance evidence and has agreed that they will support my performance for each unit with their signature/ phone reference. They know they will be contacted and must be truthful for this. | Approved AIHE |
|-------------------------------------|---|---|---|---------------|
| USGBDU801 | Prepare for a diagnostic medical ultrasound procedure | | | |
| USGBDU802 | Perform a basic diagnostic medical ultrasound procedure | | | |
| USGRSR803 | Manage diagnostic ultrasound records | | | |
| USGADU804 | Perform an advanced diagnostic medical ultrasound procedure | | | |
| USGCAD805 | Report on diagnostic medical ultrasound procedure | | | |

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| CHCPRP006 | Lead own professional development | | | |
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Appendix

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| UNIT CODE | USGBDU801 |
| UNIT TITLE | Prepare for a diagnostic medical ultrasound procedure. |
| APPLICATION | <p>This unit describes the practical skills and knowledge required by the Sonographer, to effectively identify and prepare the patient and equipment for a diagnostic medical ultrasound procedure.</p> <p>“No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication”.</p> |
| ELEMENTS | PERFORMANCE CRITERIA |
| Elements describe the essential outcomes of the unit | Performance criteria describe the performance needed to demonstrate achievement of the element. |
| 1. Obtain and review patient history | 1.1 Locate patient request form and identify the type of basic ultrasound procedure to be conducted. |
| | 1.2. Review clinical information contained in the request form and determine appropriateness of requested procedure |
| | 1.3 Locate patient and verify their identity; gain patient consent for the requested procedure; and match requested procedure with patient’s symptoms. |
| | 1.4 Determine any special needs for the patient. |
| | 1. 5. Communicate with the patient regarding their medical history. |
| | 1.6. Review patient’s medical history and record data relevant to the ultrasound procedure. |
| | 1.7 Check whether the patient has adhered to preparation instructions required by scanning protocols. |
| 2. Prepare the patient for an ultrasound procedure | 2.1 Explain the ultrasound procedure to the patient including outcomes and a time line for results prior to commencing the examination. |
| | 2.2 Assess need for the presence of a chaperone. |
| | 2.3 Advise the patient of any special instructions that may be required during the examination such as holding of breath or rolling to one side. |
| | 2.4 Complete the patient safety check. |

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| | 2.5 Obtain agreement from the patient to begin the procedure |
| | 2.6 Assist patient on to examination table; position them appropriately; and uncover the region of interest for examination |
| TITLE | Assessment Requirements for USGBDU801 Prepare for a diagnostic medical ultrasound procedure |
| PERFORMANCE EVIDENCE | <p>The learner must show evidence of the ability to complete tasks outlined in elements and performance criteria of this unit, manage tasks and manage contingencies in the context of the job role. There must be demonstrated evidence that the learner has completed the following tasks:</p> <ul style="list-style-type: none"> • obtained and reviewed the patient history of at least six (6) patients, three (3) of whom are to undergo a basic ultrasound procedure and three (3) of whom are to undergo an advanced ultrasound procedure, including: <ul style="list-style-type: none"> ○ locating, reviewing, completing forms as required by organisational policies and procedures; ○ identifying patient and confirming requested procedure and gaining patient consent; and ○ interviewing patient in line with organisational policies and procedures • prepared at least six (6) patients for an ultrasound procedure, three (3) of whom are to undergo a basic ultrasound procedure and three (3) of whom are to undergo an advanced ultrasound procedure, including: <ul style="list-style-type: none"> ○ explaining procedure and follow-up action; ○ providing any special instructions; ○ carrying out required safety checks; and ○ assisting the patient onto the examination table; • demonstrated communication skills to: <ul style="list-style-type: none"> • provide easily understood information about the procedure and its outcomes • provide clear and concise instructions during preparation for the procedure • support special needs of the patient if required, such as the use of an interpreter, or additional equipment if the patient has a disability • discuss medical history with the patient and differentiate between relevant and irrelevant elements • put patients at ease and develop rapport |
| KNOWLEDGE EVIDENCE | <p>The student must be able to demonstrate essential knowledge required to effectively do the tasks outlined in elements and performance criteria of this unit, manage the task and manage contingencies in the context of the work role. This includes knowledge of:</p> <ul style="list-style-type: none"> • the application of the Federal Privacy Act, including the rules and recommendations about : <ul style="list-style-type: none"> • collection of personal data regarding the patient or the disease, and where and how this information may be used. • storage and security of all information or data relating to a person or patient in the health context; • the use of identifiers to maintain and promote anonymity; |

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| | <ul style="list-style-type: none"> • cultural Issues surrounding equity and human rights in relation to medicine and medical tests; • issues affecting people with disabilities; • workplace policies and procedures; • workplace health and safety regulations and requirements within the clinical environment; • electronic and paper appointment and patient management systems; • patient issues affecting the imaging process, and how to respond to these, including: <ul style="list-style-type: none"> • anxiety, • confusion, • challenging behaviour (aggressiveness), • language issues (interpreter requirements); • cognitive functional disorders generally associated with the ageing process, including: <ul style="list-style-type: none"> • Alzheimer's • Dementia. • physical limitations or impediments usually associated with the ageing process, including: <ul style="list-style-type: none"> • infirmity • kyphosis, scoliosis • restriction in movement. • patient manual handling requirement for assisting in the movement and positioning of patients before their examination; • patient imaging preparation requirements which may include: <ul style="list-style-type: none"> • fasting, • sedation, • IV insertion, • IV capping, • filling bladder/emptying bladder. |
| ASSESSMENT CONDITIONS | <p>The individual being assessed must have access to a real or simulated complex clinical environment in which to demonstrate an understanding of, and the ability to apply, complex theoretical knowledge and skills.</p> <p>Skills must firstly be demonstrated in a fully equipped simulated environment that meets a range of normal work conditions and reflects all scanning protocols, including</p> <ul style="list-style-type: none"> • health and safety standards • infection control policies and procedures • all equipment required to complete procedures • varied types of ultrasound procedure in each scenario. <p>Subsequently the learner is also to be assessed in the workplace under the same conditions. This unit must be assessed under simulation at least three (3) times and also in the workplace at least three (3) times (equates to a total of six times).</p> |

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| | <p>This unit could be assessed concurrently with USGBDU802 Perform a basic diagnostic medical ultrasound procedure and USGADU804 Perform an advanced diagnostic medical ultrasound procedure</p> <p>The following methods must be used for this unit:</p> <ul style="list-style-type: none">• observation of simulated and real workplace performance• other person evidence, including supporting statements of supervisor/s• authenticated evidence of relevant work experience such as a log book• written and oral examination of underpinning knowledge• a recognition of prior learning (RPL) process will be available |
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| UNIT CODE | USGBDU802 |
| UNIT TITLE | Perform a basic diagnostic medical ultrasound procedure |
| APPLICATION | <p>This unit describes the skills and knowledge required by the sonographer, to perform a basic diagnostic medical ultrasound procedure.</p> <p>No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication</p> |
| ELEMENTS | PERFORMANCE CRITERIA |
| Elements describe the essential outcomes of the unit | Performance criteria describe the performance needed to demonstrate achievement of the element. |
| 1. Obtain and record initial images. | 1.1 Determine the type of ultrasound procedure best suited to address the clinical question. |
| | 1.2. Select appropriate tools and machine settings |
| | 1.3. Apply coupling agent to the region to be examined. |
| | 1.4. Undertake an initial scan of the region of interest and identify both normal anatomy and abnormal anatomy. |
| | 1.5 Identify and record normal anatomical images for future baseline analysis. |
| | 1.6. Adjust the machine settings after the initial scan, to optimise image quality and to support regions which need further investigation. |
| | 1.7. Record initial images specified by industry image acquisition protocols for the type of examination. |
| | 1.9. Use additional tools where required for patient assessment such as wedges to position the patient. |
| | 1.10. Describe and demonstrate elements of the ultrasound procedure to the patient as the workplace policies and procedures permit. |
| | 1.11. Determine whether additional images are required in the event of abnormal findings. |
| | 2. Review findings |
| 2.2 Determine from the initial scan if additional images are required to provide the best outcome for the patient. | |
| | 3.1. Select the specific quantification tools for the current ultrasound procedure based on industry protocols. |

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| 3. Finalise the procedure. | 3.2. Make measurements and record according to the policies and procedures of the workplace. |
| | 3.3. Use normal value tables and population data to validate calculations. |
| | 3.4. Communicate results of the procedure to the supervisor. |

| TITLE | Assessment Requirements for USGBDU802 Perform a basic diagnostic medical ultrasound procedure |
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| PERFORMANCE EVIDENCE | <p>The student must show evidence of the ability to complete tasks outlined in elements and performance criteria of this unit, manage tasks and manage contingencies in the context of the job role. There must be demonstrated evidence that the student has completed the following tasks:</p> <ul style="list-style-type: none"> Performed a basic ultrasound examination on 6 patients of varying ages in a logical and methodical sequence for the thyroid, abdomen, breast and pelvis. Each procedure must be conducted within 45 minutes per patient. – Three (3) of these examinations should be conducted in simulated situations and three (3) should be conducted in a real clinical environment. Operated the ultrasound machine with dexterity and highly developed fine motor skills in the manipulation of the transducer Followed established procedures, safety requirements and infection control guidelines relevant to the role of a Sonographer Interpreted and analysed images in real time and still frame determining the need for additional information collection Illustrated knowledge of ultrasound pathology to make a reliable diagnosis Prepared a report of ultrasound findings for 6 patients. |
| KNOWLEDGE EVIDENCE | <p>The student must be able to demonstrate the essential knowledge required to effectively do the tasks outlined in elements and performance criteria of this unit, manage the task and manage contingencies in the context of the work role. This includes knowledge of:</p> <ul style="list-style-type: none"> anatomy, physiology, embryology, pathology, pathophysiology, cross-sectional anatomy; the inter-relationship of human body organ systems; the use of ultrasound in analysing normal appearance, distinguishing and categorising the appearance of both normal and abnormal findings the basic physical properties of ultrasound including how to take measurements using the equipment and how to optimise images. how to acquire or improve images for basic procedures across a range of patients with a differing body habitus infection control policies and procedures identifying risks from possible exposure to contagious diseases, blood and body fluids |

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| | <ul style="list-style-type: none"> • medico-legal legislation affecting the undertaking of medical examinations, the acquisition, storage, and reporting of those studies • the Federal Privacy Act, including the rules and recommendations outlining the: <ul style="list-style-type: none"> ○ collection of personal data regarding the patient or the disease, and where and how this information may be used ○ openness regarding the participation of individuals or groups in a study or the collection of information for inclusion in such a study. • how to access information from data sources, regarding the patient’s disease, diagnosis, or history • use of identifiers to maintain and promote anonymity • issues affecting people with disabilities • the biological effects of ultrasound and the ability to apply them • workplace policies and procedures that relate to performing the job role; • workplace health and safety regulations and requirements • the appointment and patient management systems in use within the organisation • patient issues affecting the imaging process, and how to respond to these issues, which may include: <ul style="list-style-type: none"> • anxiety, confusion • challenging behaviour (aggressiveness) • language issues (interpreter requirements). • cognitive functional disorders generally associated with the ageing process, including: <ul style="list-style-type: none"> • Alzheimer’s • Dementia. • physical limitations or impediments usually associated with the ageing process, including: <ul style="list-style-type: none"> • infirmity • kyphosis, • scoliosis • restriction in movement. • patient manual handling requirement for assisting in the movement and positioning of patients before their examination. • patient imaging preparation requirements which may include: <ul style="list-style-type: none"> ▪ fasting, sedation, IV insertion, IV capping ▪ filling bladder/emptying bladder • scanning protocols for the abdomen, thyroid, breast and pelvis. Protocols must include acquisition of images and measurements relevant to the organ under examination. • biometric tables as specified in scanning protocols. • range of measurements that may be taken and which measurements may be appropriate under which circumstances |
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| ASSESSMENT CONDITIONS | The individual being assessed must have access to a real or simulated complex clinical environment in which to demonstrate an understanding of, and the ability to apply, complex theoretical knowledge and skills. |
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| | <p>Skills must firstly be demonstrated in a fully equipped simulated environment that meets a range of normal work conditions and reflects all scanning protocols; and subsequently the learner is also to be assessed in the workplace under the same conditions. These include:</p> <ul style="list-style-type: none">• health and safety standards• infection control policies and procedures• all equipment required to complete procedures• three types of ultrasound procedure in each scenario. <p>This unit must be assessed in the workplace at least three (3) times and under simulation at least three (3) times (equates to a total of six times).</p> <p>The following methods must be used for this unit:</p> <ul style="list-style-type: none">• observation of simulated and real workplace performance• other person evidence, including supporting statements of supervisor/s• authenticated evidence of relevant work experience such as a log book• written and oral examination of underpinning knowledge• case-studies/portfolio prepared by the student• a recognition of prior learning (RPL) process will be available |
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| UNIT CODE | USGRSR803 |
| UNIT TITLE | Manage diagnostic medical ultrasound records |
| APPLICATION | <p>This unit describes the skills and knowledge required by the sonographer, to provide a detailed and comprehensive record of the examination and use the workplace system to store and retrieve the ultrasound images.</p> <p>No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication</p> |
| ELEMENTS | PERFORMANCE CRITERIA |
| Elements describe the essential outcomes of the unit | Performance criteria describe the performance needed to demonstrate achievement of the element. |
| 1. Establish data to be stored. | 1.1 Review still frame and real-time images acquired during the procedure. |
| | 1.2. Select appropriate images for both primary and secondary storage, and delete unsuitable images. |
| | 1.3. Populate the relevant worksheet, highlighting any abnormalities identified. |
| | 1.4. Determine timeframe requirements for data storage with medical staff. |
| | 1.5 Confirm recorded information is sufficient to satisfy workplace medico-legal requirements. |
| 2. Record and store data | 2.1. Review and arrange images and worksheets for recording and storage. |
| | 2.2. Follow the workplace policies and procedures for recording, storage and retrieval of images from the archival system. |
| | 2.3 Apply patient privacy regulations when viewing and handling patient information. |
| | 2.4. Determine type of digital storage method used for storage of the results. |
| | 2.5. Apply legal requirements for the length of time required for storage of medical records. |

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| TITLE | Assessment Requirements for USGRSR803 Manage diagnostic medical ultrasound records |
| PERFORMANCE EVIDENCE | <p>The student must show evidence of the ability to complete tasks outlined in elements and performance criteria of this unit, manage tasks and manage contingencies in the context of the job role. There must be demonstrated evidence that the student has completed the following tasks:</p> <ul style="list-style-type: none"> • Identified, for primary or secondary storage, diagnostic medical ultrasound records pertaining to at least three (3) examinations <ul style="list-style-type: none"> ▪ checked workplace policies and procedures to establish requirements for acquisition and storage of images ▪ confirmed data timeframe requirements with medical staff ▪ reviewed available still frame and real-time images and selected those suitable for primary or secondary storage ▪ deleted unsuitable images ▪ completed relevant worksheets and highlighted identified abnormalities ▪ checked that information stored met medico-legal requirements • Recorded and stored data associated with at least three (3) procedures <ul style="list-style-type: none"> ▪ operated the workplace digital storage and reporting system ▪ followed workplace procedures for storage and retrieval of archived images ▪ respected patient privacy when viewing and sorting patient information ▪ checked examination worksheets for completeness ▪ completed a record of data and medical records stored |
| KNOWLEDGE EVIDENCE | <p>The student must be able to demonstrate essential knowledge required to effectively do the task outlined in elements and performance criteria of this unit, manage the task and manage contingencies in the context of the work role. This includes knowledge of:</p> <ul style="list-style-type: none"> • storage and security of all information or data relating to a person or patient in the health context • requirements for image acquisition and storage according to the policies and procedures set out within the workplace policy manual • ultrasound images and measurements that distinguish and categorise the appearance of normal and abnormal findings; • medico-legal legislation affecting the undertaking of medical examinations, the acquisition and storage of data and medical notes and the reporting of this information • the Federal Privacy Act, including rules and recommendations about <ul style="list-style-type: none"> • collection of personal data regarding the patient or the disease, and where and how this information may be used • storage and security of all information or data relating to a person or patient in the health context. • how to access information pertinent to patient's disease, diagnosis, or history • use of identifiers to maintain and promote anonymity |

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| | <ul style="list-style-type: none"> • requirements of disclosure, of personal and medical information, who may access this information, and how will they be identified and verified • issues affecting people with disabilities and their relevance to image selection • workplace health and safety regulations and requirements • patient issues affecting the imaging, and reporting process, and how to respond to these issues, which may include: <ul style="list-style-type: none"> • anxiety • confusion • challenging behaviour (aggressiveness) • language issues (interpreter requirements). |
| ASSESSMENT CONDITIONS | <p>The individual being assessed must have access to a real or simulated complex clinical environment in which to demonstrate an understanding of, and the ability to apply, complex theoretical knowledge and skills.</p> <p>The student must have access to a range of ultrasound images and medical records and to a workplace digital storage system</p> <p>The following assessment methods must be used for this unit:</p> <ul style="list-style-type: none"> • practical activities related to the management of diagnostic medical ultrasound records • case-studies and/or portfolios prepared by the student • other party support statement from supervisor/s • observation of simulated and workplace performance • written and oral examination of underpinning knowledge • a recognition of prior learning (RPL) process must be available |

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| UNIT CODE | USGADU804 |
| UNIT TITLE | Perform an advanced diagnostic medical ultrasound procedure |
| APPLICATION | <p>This unit describes the skills and knowledge required by the sonographer to undertake and effectively perform an advanced diagnostic medical ultrasound procedure. The sonographer will use and implement advanced imaging techniques, measurements and calculation tools appropriate to the clinical workplace.</p> <p>No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.</p> |
| PRE-REQUISITE UNIT | The units USGBDU801, USGBDU802, USGRSR803 must be completed before this unit is taught. |
| ELEMENTS | PERFORMANCE CRITERIA |
| Elements describe the essential outcomes of the unit | Performance criteria describe the performance needed to demonstrate achievement of the element. |
| 1. Acquire ultrasound images | 1.1 Determine the desired clinical outcome for requested procedure. |
| | 1.2 Conduct initial scan of region of interest using standard, duplex and triplex technologies to identify abnormal anatomy and pathology |
| | 1.3 Undertake an initial scan of the region of interest using standard, duplex and triplex technologies including taking measurements where necessary. |
| | 1.4 Record images and measurements for future reporting and baseline analysis if the initial scan revealed normal anatomy. |
| | 1.5 Optimise image quality by adjusting the machine settings throughout the procedure |
| | 1.6. Determine appropriate point in the examination to apply advanced ultrasound technology in accordance with workplace scanning protocols and the nature of the findings. |
| | 1.7. Select and record images as determined by workplace scanning protocols for the particular diagnosis. |
| | 1.9. Describe elements of the ultrasound procedure to the patient. |
| | 1.10. Use independent judgment during the ultrasound procedure to extend the procedure as appropriate. |

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| 2. Analyse and interpret the procedure. | 2.1. Review the patient history and other tests. |
| | 2.2. Analyse ultrasound images to ensure correct anatomical structures are recorded at sufficient image quality to support differential diagnosis. |
| | 2.3. Undertake a risk analysis of the ultrasound technique/s selected regarding invasiveness of the procedure and exposure to radiation. |
| 3. Finalise the procedure | 3.1. Select images that best support differential diagnosis and store them. |
| | 3.2. Collate images and other data including measurements and other tests for presentation to medical staff. |
| | 3.3. Use normal value tables and population data to validate measurements taken during the procedure. |
| | 3.4. Communicate results of the procedure to the supervisor. |

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| TITLE | Assessment Requirements for USGADU804 Perform an advanced diagnostic medical ultrasound procedure |
| PERFORMANCE EVIDENCE | <p>The student must show evidence of the ability to complete tasks outlined in elements and performance criteria of this unit, manage tasks and manage contingencies in the context of the job role. There must be demonstrated evidence that the student has completed the following tasks:</p> <ul style="list-style-type: none"> performed advanced ultrasound procedures on a total of 6 patients in obstetrics (2 patients), vascular (2 patients) and musculoskeletal (2 patients) within forty-five minutes for each procedure on each patient. Three (3) of these procedures should be conducted in simulated situations and three (3) should be conducted in a real clinical environment. demonstrated dexterity and fine motor skills when operating all components of an ultrasound system followed infection control procedures for the workplace and within the guidelines appropriate to the role of a Sonographer. followed patient manual handling techniques. communicated with the patient and supervisor to demonstrate appropriate understanding of the procedure and issues encountered acquired images consistent with protocols for the anatomy under investigation optimised images. applied appropriate advanced ultrasound technology such as duplex, triplex and made measurements accurately. interpreted and analysed images and measurements obtained in the procedure communicated the diagnosis using images and measurements. followed risk assessment and risk management processes where appropriate which are associated with: |

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| | <ul style="list-style-type: none"> • the choice of technologies employed (Doppler, both duplex and triplex imaging) • M-mode- limiting its use. • conducted critical analysis and synthesis of concepts arising from the analysis |
| KNOWLEDGE EVIDENCE | <p>The student must be able to demonstrate essential knowledge required to effectively do the task outlined in elements and performance criteria of this unit, manage the task and manage contingencies in the context of the work role. This includes knowledge of:</p> <ul style="list-style-type: none"> • anatomy, physiology, embryology, pathology and pathophysiology, cross-sectional anatomy, and the inter-relationship of human body organ systems • how to use ultrasound to analyse anatomy, distinguishing and categorising the appearance of both normal and abnormal findings • physical properties of ultrasound and the ability to apply that knowledge in the clinical workplace to select appropriate advanced technologies during a procedure • controls of ultrasound equipment and the ability to interpret this to optimize images and make measurements • range of measurements that may be taken and which measurements may be appropriate for each circumstance • infection control policies and procedures identifying risks that apply to ultrasound examinations • relevant medico-legal legislation affecting the undertaking of medical examinations, the consent for, acquisition of, storage, and reporting of those studies • the Federal Privacy Act, including the ability select the rules and recommendations regarding collection of personal data related to the patient or the disease, and where and how this information may be used • access to information, by data subjects regarding anything pertinent to their disease, diagnosis, or history • use of identifiers to maintain and promote anonymity • cultural issues surrounding equity and human rights in relation to medicine and medical tests • workplace policies and procedures • workplace health and safety regulations and requirements within the medical imaging environment • patient issues affecting the imaging process, and how to respond to these issues, including: <ul style="list-style-type: none"> ○ anxiety ○ confusion ○ challenging behaviour (aggressiveness) ○ language issues (interpreter requirements) • adjustments for cognitive functional disorders generally associated with the ageing process, including: <ul style="list-style-type: none"> ○ Alzheimer's ○ Dementia |

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| | <ul style="list-style-type: none"> • the need for adjustment for physical limitations or impediments usually associated with the ageing process, including: <ul style="list-style-type: none"> ○ infirmity ○ kyphosis, scoliosis ○ restriction in movement • patient imaging preparation requirements which may include: <ul style="list-style-type: none"> ○ fasting ○ sedation ○ IV insertion ○ IV capping ○ filling bladder/emptying bladder |
| ASSESSMENT CONDITIONS | <p>The Individual being assessed must provide evidence of the cognitive ability to understand knowledge areas and the ability to apply theoretical knowledge in a complex clinical environment.</p> <p>Skills must firstly be demonstrated in a fully equipped simulated environment that meets a range of normal work conditions and reflects all scanning protocols; before the student is also assessed in the workplace under the same conditions. These include:</p> <ul style="list-style-type: none"> • health and safety standards • infection control policies and procedures • all equipment required to complete procedures • three types of ultrasound procedures in each scenario. <p>This unit must be assessed at least three (3) times in the workplace and at least three (3) times in a simulation situation (equates to a total of six times).</p> <p>The following methods must be used for this unit:</p> <ul style="list-style-type: none"> • observation of simulated and real workplace performance • other person evidence, including supporting statements of supervisor/s • authenticated evidence of relevant work experience such as a log book • written and oral examination of underpinning knowledge • case-studies/portfolio prepared by the student • role-play/simulation of clinical situation. • A recognition of prior learning (RPL) process will be available |

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| UNIT CODE | USGCAD805 |
| UNIT TITLE | Report on diagnostic medical ultrasound procedure |
| APPLICATION | <p>This unit describes the skills and knowledge required to analyse, critique and report on the images obtained during diagnostic medical ultrasound procedures. The unit applies to sonographers in the clinical workplace.</p> <p>No occupational licensing, certification or specific legislative requirements apply to this unit at the time of publication.</p> |
| ELEMENTS | PERFORMANCE CRITERIA |
| Elements describe the essential outcomes of the unit | Performance criteria describe the performance needed to demonstrate achievement of the element. |
| 1. Review goals of the procedure | 1.1 Identify the approach used to acquire data during the procedure to confirm it meets required outcomes specified in the request form. |
| | 1.2 Review the data and identify diagnostic criteria to be used for a differential diagnosis. |
| | 1.3 Identify and implement a systematic approach to application of diagnostic criteria to the acquired data |
| | 1.4 Verify the approach used is consistent with workplace imaging protocols and that the goals for the procedure are met |
| 2. Analyse the data | 2.1 Review the clinical question |
| | 2.2 Apply the diagnostic criteria to distinguish normal and abnormal findings and compare these to the clinical question. |
| | 2.3 Determine the potential diagnosis. |
| | 2.4 Review acquired images and measurements against the diagnosis before reporting. |
| 3. Report the outcomes | 3.1 Source the worksheet and images created in the procedure and check for completeness and accuracy. |
| | 3.2 Organise the data in a report format consistent with workplace policies. |
| | 3.3 Save the data to primary storage for review by medical staff. |
| | 3.4 Archive to secondary storage after medical staff review. |

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| TITLE | Assessment Requirements for USGCAD805 Report on diagnostic medical ultrasound procedure |
| PERFORMANCE EVIDENCE | <p>The student must show evidence of the ability to complete tasks outlined in elements and performance criteria of this unit, manage tasks and manage contingencies in the context of the job role.</p> <p>The student must show evidence of the ability to critically analyse complex image data and transform that information into a diagnosis and report.</p> <p>There must be demonstrated evidence that the learner has completed the following tasks:</p> <ul style="list-style-type: none"> • prepared at least three (3) diagnoses and reports based on complex data <ul style="list-style-type: none"> ▪ located, reviewed and applied workplace policies and procedures relevant to ultrasound procedures including: scanning protocols, measurements, use of biometric tables, infection control and reporting. ▪ operated the workplace image storage and reporting system to illustrate image retrieval and manipulation. ▪ communicated complex information including a report to medical staff. ▪ made a reliable diagnosis based on knowledge of ultrasound pathology. ▪ interpreted and analysed images and measurements obtained in the procedure using diagnostic criteria from ultrasound protocols ▪ prepared a report of the ultrasound findings from the procedure. ▪ completed all reviewing and reporting within twenty minutes |
| KNOWLEDGE EVIDENCE | <p>The learner must be able to demonstrate essential knowledge required to effectively do the tasks outlined in elements and performance criteria of this unit, manage the tasks and manage contingencies in the context of the work role. This includes knowledge of:</p> <ul style="list-style-type: none"> • anatomy, physiology, embryology, pathology and pathophysiology, cross-sectional anatomy, and the inter-relationship of human body organ systems • use of ultrasound in analysing anatomy, and distinguishing and categorising the appearance of both normal and abnormal findings using images and measurements • use of radiology information systems to report on procedures, retrieve and store images and measurements. • relevant medico-legal legislation affecting the undertaking of medical examinations, acquisition, storage, and reporting of those studies • legal and ethical framework of the Australian Medical System, including duty of care, ethical and legal responsibilities under the Australian Medical framework • the Federal Privacy Act, including the rules and recommendations put forward outlining the collection of personal data regarding the patient or the disease, and where and how this information may be used • storage and security of all information or data relating to a person or patient in the health context • use of identifiers to maintain and promote anonymity • requirements of disclosure, of personal and medical information, who may access this information, and how will they be identified and verified; |

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| | <ul style="list-style-type: none"> • the need for and regulations around information sharing • workplace policies and procedures workplace health and safety regulations and requirements |
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| ASSESSMENT CONDITIONS | <p>The individual being assessed must have access to a real or simulated complex clinical environment in which to demonstrate an understanding of, and the ability to apply, complex theoretical knowledge and skills.</p> <p>This unit can be assessed independently however holistic assessment practice with other units of competency is recommended.</p> <p>The student must have access to a range of ultrasound images and medical records and to a workplace digital storage system</p> <p>The following assessment methods must be used for this unit:</p> <ul style="list-style-type: none"> • practical activities related to diagnosis based on complex medical ultrasound data • case-studies and/or portfolios prepared by the student • other party support statement from supervisor/s • written and oral examination of underpinning knowledge • a recognition of prior learning (RPL) process must be available |
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