



North Dakota Medical Imaging and Radiation Therapy Board

PO Box 398 Bismarck, ND 58502 Phone: 701-425-0861

www.ndmirtboard.com Email: info@ndmirtboard.com

North Dakota Conditional Limited X-Ray Machine Operator Information

(Revised clinicals for new applicants only after March 1, 2023)

Note: This packet of information is for **NON-Imaging Personnel** (i.e.: nursing or other allied health professionals approved by the Board) only wishing to perform as a Limited X-Ray Machine Operator (LXMO). All prerequisite structured academic and practical clinical competency requirements MUST be completed BEFORE applying to take the State LXMO Examination administered by the ARRT.

Competence in clinical practice for the LXMO encompasses attributes of knowledge, problem solving, technical skills, comprehension, attitudes, and ethics.

Upon satisfactory completion of the structured academic program, the applicant should begin their practical Clinical Competency requirements in a timely manner. **Applicant must have arrangements in place to perform the clinical competency requirements ahead of time and inform the Board of what/where the facility will be utilized.**

Clinical Competency requirements MUST be completed within nine (9) months. *If there is valid evidence of a hardship completing the clinical requirements within 9 months the Conditional LXMO must contact the board office immediately with written explanations.*

*The Board strongly encourages NOT to have more than one individual completing clinicals at a time within a smaller facility, as this could cause too much competition in completing examinations in small, low-volume imaging department.

There is a total of 97 evals and finals competencies to be completed by the Conditional LXMO. If needed simulations are allowed, but every effort should be to have patient interactions and NOT simulate.

For the 69 clinical evals #1-3, etc.; a majority of these must be performed on actual patients and NOT simulated on the more common procedures/exams. (If a vast majority of these are simulated your submission may be rejected, requiring you to acquire more patient interactions and fewer simulations.)

For the final, of the 28 procedure/exam competencies no more than 9 may be simulated.

The Conditional LXMO may perform procedures/examinations only while under personal supervision by a ND licensed ARRT Registered Radiographer *or* a ND licensed currently practicing LXMO with three (3) years of experience.

- **The Conditional LXMO may ONLY perform procedures/examination independently (not under personal supervision) after successfully completing the required evaluations and final for that particular procedure/examination.**

The Conditional LXMO may obtain their clinical competencies at more than one facility if they choose, simply document each on the form provided.

With nine months to complete all clinical competency requirements, it is encouraged to make arrangements at a larger facility with a higher volume of procedures/examinations if you are employed at a smaller facility with a low volume of procedures/examinations. This is not a requirement from the Board, only encouragement to assist with your success of completion and compliance of the clinical competency requirements. The Board may conduct random audits of the submitted examinations.



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Overview of Clinical Competency Requirements:

***Must have a Conditional LXMO License BEFORE beginning clinicals.**

- The Board strongly encourages not to have more than one individual per facility completing clinicals at a time, as this could cause too much competition in completing examinations in small low-volume department.
 - Applicant must have arrangements in place to perform the clinical competency requirements ahead of time and inform the Board of what/where the facility will be utilized. Keep reading for more information on clinical requirements.
- 1) After satisfactory completion of the structured academic program (copies of proof must be submitted to the Board office), the applicant may be issued a Conditional LXMO ND License and receive the packet of information regarding clinical requirements.
 - 2) Clinical Competency requirements MUST be completed within nine (9) months. *If there is valid evidence of a hardship completing the clinical requirements within 9 months, the Conditional LXMO must contact the board office immediately with written explanation(s).*
 - 3) The Board may conduct random audits of the submitted examinations/procedures.
 - 4) **There is a total of 97 evals and finals competencies to be completed by the Conditional LXMO.** If needed simulations are allowed, but every effort should be to have patient interactions and NOT simulate.
 - 5) **For the 69 clinical evals #1-3, etc.; a majority of these must be performed on actual patients and NOT simulated on the more common procedures/exams.** (If a vast majority of these are simulated your submission may be rejected, requiring you to acquire more patient interactions and fewer simulations.)
 - 6) **For the final, of the 28 procedure/exam competencies no more than 9 may be simulated.**
 - 7) The Conditional LXMO may perform procedures/examinations only while under **personal supervision** by a ND licensed ARRT Registered Radiographer or a ND licensed currently practicing LXMO with three (3) years of experience. *(Personal supervision means: must be in attendance in the room during the performance of the procedure/examination.)*
 - 8) The Conditional LXMO may obtain their clinical competencies at more than one facility if they choose, simply document each on the form provided in the information packet.

With nine months to complete all clinical competency requirements, it is encouraged to make arrangements at a larger facility with a higher volume of procedures/examinations if you are employed at a smaller facility with a low volume of procedures/examinations. *This is not a requirement from the Board, only encouragement to assist with your success of completion and compliance of the clinical competency requirements.*
 - 9) The Conditional LXMO may ONLY perform procedures/examinations independently (not under personal supervision) **after** successfully completing the required evaluations and final for that particular procedure/examination.
 - 10) After successful completion of the Clinical Competency Requirements, complete the **Completion Agreement** (*last page of information packet*) and send to Board office with a copy of the Clinical Competency Document.
 - 11) Lastly, the Conditional LXMO notifies the Board office in writing requesting to take the ARRT LXMO exam.
 - 12) Upon completion of all prerequisites, ARRT decides if requirements and qualifications are met.
 - 13) If met, NDMIRTB forwards application to the ARRT. Exam Fees are payable directly to ARRT.
 - 14) **Required mandatory exam modules: Core, Chest, Extremities, Skull/Sinuses, and Spine.**
 - 15) ARRT contacts the applicant with a 90-day window to take the exam.
 - 16) Exam results are sent to NDMIRTB. If applicant fails a module, they retake only the failed exam.
 - 17) NDMIRTB contacts applicant of pass/fail. If successfully passed, will receive full licensure as a ND LXMO.



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Reminders for Clinical Competencies:

Clinical competency assessment/evaluation of the Conditional Limited X-Ray Machine Operator by a ND licensed ARRT Registered Radiographer or a ND licensed currently practicing LXMO with three (3) years of experience should include the following:

- 1) Evaluation of requisition and patient assessment
- 2) Radiographic room readiness
- 3) Patient care and management
- 4) Equipment operation and technique selection
- 5) Positioning skills
- 6) Radiation protection for patient, self, and others
- 7) Image processing and evaluation to determine whether images demonstrate proper:
 - a) Anatomical part(s)
 - b) Alignment
 - c) Radiographic techniques
 - d) Image identification
 - e) Radiation protection

There is a total of 97 evals and finals competencies to be completed by the Conditional LXMO. If needed simulations are allowed, but every effort should be to have patient interactions and NOT simulate.

For the 69 clinical evals #1-3, etc.; a majority of these must be performed on actual patients and NOT simulated on the more common procedures/exams. (If a vast majority of these are simulated your submission may be rejected, requiring you to acquire more patient interactions and fewer simulations.)

For the final, of the 28 procedure/exam competencies no more than 9 may be simulated.

Practice Standards Related to Limited X-Ray Machine Operators (LXMO):

Limited x-ray machine operators are limited in scope of practice to only those procedures approved by the board while under the general supervision by a licensed practitioner.

Limited x-ray machine operators may NOT perform fluoroscopic procedures or administer contrast media or radiopharmaceuticals. NDAC 114-02-01-02

*Any other procedures or examinations performed during an emergency and requiring a limited x-ray machine operator to perform requires a written order from a licensed practitioner with personal supervision.

**Licensees may petition the board to perform procedures and examinations not currently identified in the Limited X-Ray Machine Operator (LXMO) Practice Standards. One of the criterion utilized by the board includes frequency of performance to consider approval or justification of expansion of the procedures and examination.



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Conditional Limited X-ray Machine Operator Practical Clinical Competency Documentation

These forms MUST be retained by the Conditional LXMO for five (5) years. (Form may be duplicated)

Full Name: _____ Date: _____
Last First M.I.

Address: _____
Street Address Apartment/Unit #
City State ZIP Code

Phone: _____ DOB: _____ Email: _____
(The Board staff will communicate with you at this email address, please check regularly.)

| Radiographic Procedure/ Examination Competency | Total of 28 Procedures/exams ***** Limited Projections/Views: | Date Completed: (mm/dd/yy) | Clinical Demonstration Competency ***** List your Facility <u>Patient Identifier</u> OR if Simulated: | Verified by: Signature of a ND Licensed ARRT Registered Radiographer or ND licensed LXMO with 3 years' experience |
|--|---|-------------------------------|--|---|
| Chest: | | | | |
| | Chest two view: (AP/PA, Lateral) *this is a common exam no simulations allowed | | Eval #1: | |
| | | | Eval #2: | |
| | | | Eval #3: | |
| | | | Final: (Of the 28 procedures/exams no more than 9 may be simulated for the Final) | |
| | Chest lateral Decubitus | | Eval #1: | |
| | | | Final: | |
| | | | (Of the 28 procedures/exams no more than 9 may be simulated for the Final) | |
| Ribs: | | | | |
| | AP/PA, Obliques | | Eval #1: | |
| | | | Eval #2: | |
| | | | Final: | |
| | | | (Of the 28 procedures/exams no more than 9 may be simulated for the Final) | |



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|---|---|--------------------------------------|--|---|
| Abdomen: | | | | |
| | KUB (supine) | | Eval #1: | |
| | | | Eval #2: | |
| | | | Eval #3: | |
| | | | Final: (Of the 28 procedures/exams no more than 9 may be simulated for the Final) | |
| | Upright Abdomen | | Eval #1: | |
| | | | Eval #2: | |
| | | | Eval #3: | |
| | | | Final: (Of the 28 procedures/exams no more than 9 may be simulated for the Final) | |
| Hand: | | | | |
| | PA, Lateral, Oblique | | Eval #1: | |
| | | | Eval #2: | |
| | | | Eval #3: | |
| | | | Final: (Of the 28 procedures/exams no more than 9 may be simulated for the Final) | |
| Fingers (includes the thumb): | | | | |
| | PA, Lateral, Oblique | | Eval #1: | |
| | | | Eval #2: | |
| | | | Final: (Of the 28 procedures/exams no more than 9 may be simulated for the Final) | |



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|---|---|--------------------------------------|--|---|
| Wrist: | | | | |
| | PA, Lateral, Oblique | | Eval #1: | |
| | | | Eval #2: | |
| | | | Eval #3: | |
| | | | Final: | |
| | | | (Of the 28 procedures/exams no more than 9 may be simulated for the Final) | |
| Forearm: | | | | |
| | AP, Lateral | | Eval #1: | |
| | | | Eval #2: | |
| | | | Eval #3: | |
| | | | Final: | |
| | | | (Of the 28 procedures/exams no more than 9 may be simulated for the Final) | |
| Elbow: | | | | |
| | AP, Lateral | | Eval #1: | |
| | | | Eval #2: | |
| | | | Eval #3: | |
| | | | Final: | |
| | | | (Of the 28 procedures/exams no more than 9 may be simulated for the Final) | |
| Humerus: | | | | |
| | AP, Lateral | | Eval #1: | |
| | | | Eval #2: | |
| | | | Eval #3: | |
| | | | Final: | |
| | | | (Of the 28 procedures/exams no more than 9 may be simulated for the Final) | |



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|---|---|--------------------------------------|--|---|
| Shoulder: | | | | |
| | AP, Internal and External Rotation, Y-view | | Eval #1: | |
| | | | Eval #2: | |
| | | | Eval #3: | |
| | | | Final: | |
| | | | (Of the 28 procedures/exams no more than 9 may be simulated for the Final) | |
| Clavicle: | | | | |
| | AP, AP axial | | Eval #1: | |
| | | | Final: | |
| | | | (Of the 28 procedures/exams no more than 9 may be simulated for the Final) | |
| Pelvis: | | | | |
| | AP | | Eval #1: | |
| | | | Eval #2: | |
| | | | Eval #3: | |
| | | | Final: | |
| | | | (Of the 28 procedures/exams no more than 9 may be simulated for the Final) | |
| Hips: | | | | |
| | AP, frog-leg Lateral, or Cross-table Lateral | | Eval #1: | |
| | | | Eval #2: | |
| | | | Eval #3: | |
| | | | Final: | |
| | | | (Of the 28 procedures/exams no more than 9 may be simulated for the Final) | |



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|---|---|--------------------------------------|--|---|
| Femur: | | | | |
| | AP, Lateral | | Eval #1: | |
| | | | Eval #2: | |
| | | | Eval #3: | |
| | | | Final: | |
| | | | (Of the 28 procedures/exams no more than 9 may be simulated for the Final) | |
| Knee: | | | | |
| | AP, Lateral, Oblique(s) | | Eval #1: | |
| | | | Eval #2: | |
| | | | Eval #3: | |
| | | | Final: | |
| | | | (Of the 28 procedures/exams no more than 9 may be simulated for the Final) | |
| Patella: | | | | |
| | AP, Lateral, Sunrise | | Eval #1: | |
| | | | Eval #2: | |
| | | | Eval #3: | |
| | | | Final: | |
| | | | (Of the 28 procedures/exams no more than 9 may be simulated for the Final) | |
| Tibia-fibula: | | | | |
| | AP, Lateral | | Eval #1: | |
| | | | Eval #2: | |
| | | | Eval #3: | |
| | | | Final: | |
| | | | (Of the 28 procedures/exams no more than 9 may be simulated for the Final) | |



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|---|---|--------------------------------------|--|---|
| Ankle: | | | | |
| | AP, Lateral, Oblique(s) | | Eval #1: | |
| | | | Eval #2: | |
| | | | Eval #3: | |
| | | | Final: | |
| | | | (Of the 28 procedures/exams no more than 9 may be simulated for the Final) | |
| Calcaneus: | | | | |
| | Plantodorsal, Lateral | | Eval #1: | |
| | | | Final: | |
| | | | (Of the 28 procedures/exams no more than 9 may be simulated for the Final) | |
| Foot: | | | | |
| | AP, Lateral, Oblique(s) | | Eval #1: | |
| | | | Eval #2: | |
| | | | Eval #3: | |
| | | | Final: | |
| | | | (Of the 28 procedures/exams no more than 9 may be simulated for the Final) | |
| Toes: | | | | |
| | AP, Lateral, Oblique(s) | | Eval #1: | |
| | | | Final: | |
| | | | (Of the 28 procedures/exams no more than 9 may be simulated for the Final) | |



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|---|---|--------------------------------------|--|---|
| Sinuses: | | | | |
| | Water's, Lateral | | Eval #1: | |
| | | | Final: | |
| | | | (Of the 28 procedures/exams no more than 9 may be simulated for the Final) | |
| Skull: | | | | |
| | AP/PA, Lateral | | Eval #1: | |
| | | | Final: | |
| | | | (Of the 28 procedures/exams no more than 9 may be simulated for the Final) | |
| Facial Bones: | | | | |
| | PA, Lateral | | Eval #1: | |
| | | | Final: | |
| | | | (Of the 28 procedures/exams no more than 9 may be simulated for the Final) | |
| Nasal Bones: | | | | |
| | Water's, Lateral | | Eval #1: | |
| | | | Final: | |
| | | | (Of the 28 procedures/exams no more than 9 may be simulated for the Final) | |
| C-Spine: | | | | |
| | AP, Lateral, Odontoid (non-trauma), or possible Swimmer's (non-trauma) | | Eval #1: | |
| | | | Eval #2: | |
| | | | Final: | |
| | | | (Of the 28 procedures/exams no more than 9 may be simulated for the Final) | |



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|---|---|---|--|---|
| T-Spine: | | | | |
| | AP, Lateral, or possible Swimmer's (non-trauma) | | Eval #1: | |
| | | | Eval #2: | |
| | | | Final: | |
| | | (Of the 28 procedures/exams no more than 9 may be simulated for the Final) | | |
| L-Spine: | | | | |
| | AP, Lateral, L5-S1 lateral spot (cone down) | | Eval #1: | |
| | | | Eval #2: | |
| | | | Final: | |
| | | (Of the 28 procedures/exams no more than 9 may be simulated for the Final) | | |
| | | | | |
| | | | | |
| | | | | |

Please print clearly for all sections:

Please list ALL facilities and locations, if more than one, where the Conditional LXMO performed their Clinical Competencies:

- 1) _____
- 2) _____
- 3) _____
- 4) _____
- 5) _____
- 6) _____
- 7) _____



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REQUIRED: If more than one, signature of EACH verifying the competency of the Limited X-Ray Machine Operator (LXMO), please included your ARRT credentials as applicable, ie: RT, CT, M or if a ND LXMO. ***Also please print name after signature, board staff will verify licensure.**

*MUST only be verified by a ND Licensed ARRT Registered Radiographer or a ND licensed currently practicing LXMO with three (3) years of experience.

- 1) _____
- 2) _____
- 3) _____
- 4) _____
- 5) _____
- 6) _____
- 7) _____

Reminders for evaluations of the 30 required procedures/exams and the evaluations:

Clinical competency assessment/evaluation of the Conditional Limited X-Ray Machine Operator by a ND licensed ARRT Registered Radiographer or a ND licensed currently practicing LXMO with three (3) years of experience should include the following:

- 1) Evaluation of requisition and patient assessment
- 2) Radiographic room readiness
- 3) Patient care and management
- 4) Equipment operation and technique selection
- 5) Positioning skills
- 6) Radiation protection for patient, self, and others
- 7) Image processing and evaluation to determine whether images demonstrate proper:
 - a) Anatomical part(s)
 - b) Alignment
 - c) Radiographic techniques
 - d) Image identification
 - e) Radiation protection

The Board may conduct random audits of the submitted examinations to ensure compliance and competency.

This form must be retained by the Conditional LXMO for five years.

Disclaimer and Signature by Conditional LXMO:

All applicants please read and sign/date the statement below. All applications will be null and void unless properly signed and dated. I hereby submit this application and supporting documents and attest to the authenticity and accuracy of the application and all information contained herein. I further understand that if any information contained in this application or supporting documents submitted on my behalf, is determined to be false or misleading, this may be cause for denial, revocation or suspension of any license pursuant to this application and criminal prosecution and punishment.

Signature: _____ Date: _____



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Completion Agreement

This form must be completed, signed and submitted to the Board Office upon completion of the Clinical Competency requirements.

This agreement certifies that the Conditional LXMO has successfully completed the Clinical Competency requirements as established by the North Dakota Medical Imaging and Radiation Therapy Board.

This Certifies that

(Enter Name of Conditional LXMO)

In signing this Agreement, the Conditional Limited X-Ray Machine Operator and their immediate supervising manager attest that all the practical clinical competency requirements have been fulfilled.

The Conditional LXMO is to retain their evaluation documentation for a period of five (5) years.

(Conditional LXMO signature)

(Immediate Supervising Manager signature)

Date