

Nurses specializing in diagnostic imaging: advances and perspectives for advanced practice nursing

*Enfermeros especialistas en diagnóstico por la imagen:
avances y perspectivas para la enfermería de práctica avanzada*

*Enfermeiros especialistas em diagnóstico por imagem:
avanços e perspectivas para a enfermagem de prática avançada*

**Fernanda Raphael Escobar
Gimenes¹**

ORCID: 0000-0002-5174-112X

Jennifer Midiani Gonella^{2*}

ORCID: 0000-0002-3162-6327

¹Universidade de São Paulo. São Paulo, Brazil.

How to cite this article:

Gimenes FRE, Gonella JM. Nurses specializing in diagnostic imaging: advances and perspectives for advanced practice nursing. *Glob Acad Nurs.* 2024;5(2):e424. <https://dx.doi.org/10.5935/2675-5602.20200424>

*Corresponding author:

jennifer.gonella@alumni.usp.br

Invitation: 05-02-2024

Specialization in diagnostic imaging nursing, recognized by the Federal Nursing Council (COFEn) through Resolution No. 581/2018, and amended by COFEn decisions No. 65/2021 and 120/2021¹, marks a significant evolution in nursing practice in Brazil, aligning with the demands of increasingly technological and complex healthcare. This specialization allows nurses to contribute significantly to early diagnosis, monitoring, and therapeutic planning, which is essential for delivering quality, patient-centered healthcare.

The nurse specializing in diagnostic imaging is a highly qualified professional, with in-depth knowledge of anatomy, physiology, pathology, pharmacology, and imaging techniques. Its role involves participating in performing various examinations, such as ultrasound, computed tomography, magnetic resonance imaging, and nuclear medicine, as well as administering radiopharmaceuticals and contrast media.

Although nurses do not have the ethical and legal competence to carry out nosological diagnoses, their role is essential in the process of obtaining quality images, in guiding and preparing patients, in monitoring possible adverse reactions and in managing risks². Furthermore, the nurse specializing in diagnostic imaging can contribute to health education, guiding patients on the procedures and care needed before and after exams.

Nurses specialized in diagnostic imaging are pillars of advanced nursing practice, expanding autonomy and clinical decision-making capacity. They are essential in the early detection of diseases, directly contributing to the definition of more effective treatment plans and monitoring the clinical evolution of patients, highlighting the inseparable link between advanced diagnosis and comprehensive care.

The Pan American Health Organization (PAHO) recognizes advanced practice nursing as a strategy to strengthen health systems and improve access and quality of services provided to the population³. In this context, the nurse specializing in diagnostic imaging plays a fundamental role, contributing to the effectiveness of health care at different levels of complexity, including primary care.

The role of these nurses in the health network, especially in primary care, is transformative. They facilitate access to accurate and rapid diagnoses, optimizing the referral and treatment of health conditions, which is essential for promoting health and preventing complications. This integration promotes a more efficient and effective care approach, reinforcing continuity of care.

The presence of a nurse specializing in diagnostic imaging in the multidisciplinary team contributes to the humanization of care, the reception of patients, and the comprehensiveness of health care⁴. Furthermore, this professional can act as a continuing education agent, disseminating knowledge and practices based on scientific evidence.

Despite advances, diagnostic imaging nurses face challenges such as the need for continuous training and adaptation to technological innovations. One of the challenges is the need for constant updating and training, considering technological advances and new imaging techniques⁵. Furthermore, this professional must be prepared to act in risk management, especially concerning the administration of radiopharmaceuticals and contrast media, preventing and early identifying possible adverse reactions.



However, the potential to improve the quality of care and patient safety is immense. By strengthening this specialty, it is possible not only to improve health outcomes, but also to optimize resources, reducing costs associated with late or inaccurate diagnoses. The potential of nurses specializing in diagnostic imaging is broad, and it is necessary to invest in the training, training, and development of these professionals so that they can fully contribute to improving the health of the Brazilian population.

Diagnostic imaging nursing is an expanding field that represents an evolution in the way healthcare is designed and delivered. Recognition by COFEn¹ is an important step towards valuing and integrating these professionals into advanced nursing practice and the healthcare network. Challenges exist, but opportunities to improve quality of care and patient safety are evident. Encouraging the development of this specialty is essential to meet the demands of a population that needs increasingly specialized and personalized healthcare.

References

1. Conselho Federal de Enfermagem. Resolução COFEn n.º 581/2018 – Alterada pela Resolução COFEn n.º 625/2020, Resolução COFEn n.º 610/2019 e Decisões COFEn n.º 065/2021, 120/2021, 263/2023, 264/2023 e 21/2024. Atualiza, no âmbito do Sistema Cofen/Conselhos Regionais de Enfermagem, os procedimentos para Registro de Títulos de Pós-Graduação Lato e Stricto Sensu concedido a Enfermeiros e aprova a lista das especialidades. [Internet]. Brasília: COFEn; 2018 [cited 2023 Apr 14]. Available from: http://www.cofen.gov.br/resolucao-cofen-no-581-2018_64383.html
2. Oliveira AKA, Viana DL, Gomes LFS, Pinto LMC, Lemos PFS. Atuação do enfermeiro no serviço de diagnóstico por imagem: uma revisão sistemática. *Rev Enferm UFPE on line*. [Internet]. 2017 [cited 2023 Apr 14];11(5):1964-72. Available from: <https://periodicos.ufpe.br/revistas/revistaenfermagem/article/view/23345>
3. Organização Pan-Americana da Saúde. Ampliação do papel dos enfermeiros na atenção primária à saúde. [Internet]. Washington, D.C.: OPAS; 2018 [cited 2023 Apr 14]. Available from: <https://iris.paho.org/handle/10665.2/34960>
4. Gomes RG, Ribeiro LM, Pires AS, Pereira CDFD, Peres EM. Atuação do enfermeiro no processo de administração de radiofármacos. *Rev Enferm UERJ*. [Internet]. 2019 [cited 2023 Apr 14];27:e38964. Available from: <https://www.e-publicacoes.uerj.br/index.php/enfermagemuerj/article/view/38964>
5. Flôr RC, Kirchhof ALC. Uma prática educativa de sensibilização quanto à exposição à radiação ionizante com profissionais de saúde. *Rev Bras Enferm*. [Internet]. 2006 [cited 2023 Apr 14];59(3):274-8. Available from: <https://www.scielo.br/j/reben/a/bFDXQTRFSQwLMcwYpmtLhTx/?lang=pt>

