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PATIENT EXPERIENCES AND COMFORT DURING COMPUTED TOMOGRAPHY EXAMINATIONS: A CROSS-SECTIONAL STUDY

Samuel Mohan Kamble[1], Dr. Maajid Mohi Ud Din Malik[2*]

[1]M.Sc. Scholar- Radiology and Imaging Technology, Dr. D.Y. Patil School of Allied Health Sciences, Dr. D.Y. Patil Vidyapeeth, Pune (Deemed to be University), Sant Tukaram Nagar, Pimpri, Pune, India, 411018
[2*]Assistant Professor, Dr. D.Y. Patil School of Allied Health Sciences, Dr. D.Y. Patil Vidyapeeth, Pune (Deemed to be University), Sant Tukaram Nagar, Pimpri, Pune, India, 411018, https://orcid.org/0000-0003-1743-1520

majidmalik343@gmail.com[2]

***Corresponding Author: Dr. Maajid MohiUd Din Malik**

Abstract

Background: Computed Tomography (CT) scanning has become an indispensable diagnostic tool in modern healthcare, yet patient experience during these procedures often receives limited attention. Understanding patient perspectives on safety, comfort, and communication during CT examinations is crucial for delivering patient-centered care.

Objective: To evaluate patient experiences, comfort levels, anxiety, and overall satisfaction during computed tomography examinations, identifying factors that influence patient comfort and areas for improvement in patient-centered care.

Methods: A prospective cross-sectional study was conducted at Dr. D.Y. Patil Medical College and Hospital, Pune, between April and July 2025. A total of 250 adult patients undergoing CT examinations completed a structured questionnaire assessing anxiety levels, physical comfort, communication quality, and overall satisfaction. Data were analyzed using descriptive statistics and correlation analysis.

Results: The study population consisted of 130 females (52%) and 120 males (48%), with the largest age group being 46-60 years (36.4%). First-time CT patients comprised 44% of participants. Moderate to high anxiety was reported by 52.4% of patients, primarily due to fear of results (37.2%) and first-time experience (32.4%). Despite anxiety, 100% of patients rated technologist support as "very good," and 71.2% described their overall experience as "very good." Significant correlations were found between table comfort and anxiety levels ($p<0.001$).

Conclusion: While CT scanning technology continues to advance, patient experiences and comfort are significantly influenced by communication quality, staff empathy, and environmental factors. Simple interventions focusing on patient education, emotional support, and physical comfort can substantially improve the CT examination experience and patient satisfaction.

Keywords: Computed tomography, Patient experience, Patient comfort, Radiology, Anxiety, Communication, Medical imaging, Cross-sectional study

Introduction

Computed Tomography (CT) has revolutionized diagnostic medicine since its introduction in the 1970s by Sir Godfrey Hounsfield and Allan Cormack.[1] This breakthrough technology, which earned its inventors the Nobel Prize in 1979, has become one of the most frequently utilized imaging modalities in contemporary healthcare.[2] Modern CT scanners provide rapid, detailed cross-sectional images that are crucial for diagnosing trauma, cancer, vascular diseases, and neurological conditions.[3]

Despite remarkable technological advances in CT imaging—including faster acquisition times, enhanced resolution, and reduced radiation exposure—the patient experience during these procedures has received considerably less attention in clinical research and practice improvement initiatives.[4] For many patients, undergoing a CT scan represents more than a routine diagnostic procedure; it often involves anxiety, uncertainty, and vulnerability that can significantly impact their overall healthcare experience.[5]

The shift toward patient-centered care in healthcare has highlighted the importance of understanding and addressing not only the clinical aspects of medical procedures but also the psychological, emotional, and social dimensions of patient care. [6]In diagnostic imaging, this paradigm shift emphasizes the need to consider how patients perceive safety, comfort, and communication during their imaging experience.

Previous studies have documented that patients undergoing CT examinations frequently experience anxiety related to multiple factors, including fear of diagnosis, claustrophobia, radiation exposure concerns, and unfamiliarity with the procedure. [7],[8] This anxiety can adversely affect patient cooperation, image quality, and may necessitate repeat examinations, ultimately compromising both patient satisfaction and clinical efficiency.[9],[10]

Research indicates that effective communication, empathetic staff interaction, and attention to physical comfort can significantly improve patient experience during diagnostic imaging procedures.[11],[12] However, there remains a paucity of comprehensive data specifically examining patient experiences and comfort during CT examinations, particularly in the Indian healthcare context.[13],[14]

The present study was designed to bridge this knowledge gap by systematically evaluating patient experiences, comfort levels, anxiety, and overall satisfaction during CT examinations. By understanding these factors from the patient's viewpoint, healthcare providers can develop targeted interventions to enhance the quality and humanness of CT imaging services.

Methodology

Study Design and Setting

This prospective, observational cross-sectional study was conducted in the Department of Radiology at Dr. D.Y. Patil Medical College and Hospital, Pune, India. The study protocol was approved by the Institutional Ethics Committee, and all participants provided informed consent.

Study Population and Sampling

The study population comprised adult patients (≥18 years) scheduled for CT examinations during the study period from April to July 2025. Consecutive sampling was employed to recruit eligible participants. Inclusion criteria included adult patients capable of completing a written survey, while exclusion criteria encompassed emergency patients, severely ill patients, and individuals with cognitive impairment that would prevent informed consent or questionnaire completion.

Sample Size Calculation

Based on previous literature reporting claustrophobia prevalence of 33.6% among CT patients,[15] the sample size was calculated using a 95% confidence interval with 6% acceptable difference, yielding a required sample of 239 patients. A total of 250 patients were enrolled to account for potential incomplete responses.

Data Collection Instrument

A structured questionnaire was developed based on existing literature and validated instruments for assessing patient experience in diagnostic imaging.[16],[17] The questionnaire comprised multiple sections:

1. **Demographics and Clinical Information:** Age, gender, previous CT experience, body region scanned, and contrast agent use
2. **Pre-examination Assessment:** Anxiety levels, clarity of pre-procedure instructions, and reasons for anxiety
3. **Procedural Comfort:** Physical comfort during scanning, environmental factors (room temperature, noise, table comfort), and contrast injection experience

4. **Communication and Support:** Quality of staff explanations, opportunity to ask questions, and perceived support
5. **Overall Experience:** Satisfaction ratings, likelihood to recommend services, and privacy assessment

Responses were recorded using 5-point Likert scales for quantitative assessment, with additional categorical and open-ended questions to capture specific concerns and suggestions.

Data Collection Procedure

Eligible patients were approached upon arrival for their CT examination. After obtaining informed consent, demographic and clinical information were recorded. Following completion of the CT examination, patients were provided with the questionnaire in a quiet area and instructed to deposit completed forms in a secure collection box to ensure anonymity.

Statistical Analysis

Data analysis was performed using appropriate statistical software. Descriptive statistics including frequencies, percentages, means, and standard deviations were calculated for all variables. Categorical variables were analyzed using chi-square tests, while correlations between continuous variables were assessed using Pearson correlation coefficients. Statistical significance was set at $p<0.05$.

Results

Demographic Characteristics

A total of 250 patients completed the study questionnaire. The demographic distribution demonstrated a nearly equal gender representation with 130 females (52%) and 120 males (48%). Age distribution showed the largest group was 46-60 years (91 patients, 36.4%), followed by 31-50 years (81 patients, 32.4%) and 18-30 years (78 patients, 31.2%) (Table 1).

Table 1: Demographic Characteristics and CT Experience

Characteristic	Category	Frequency (n)	Percentage (%)
Age Group	18-30 years	78	31.2
	31-50 years	81	32.4
	46-60 years	91	36.4
Gender	Female	130	52.0
	Male	120	48.0
Previous CT Experience	First time	110	44.0
	2-5 times	72	28.8
	More than 5 times	68	27.2
Contrast Administration	Yes	190	76.0
	No	60	24.0

Examination Types and Clinical Context

Urography was the most frequently performed examination type, accounting for 113 cases (45.2%), followed by abdominal CT (47 cases, 18.8%), triple-phase studies (30 cases, 12.0%), head CT (29 cases, 11.6%), HRCT chest (26 cases, 10.4%), and standard chest CT (5 cases, 2.0%). The majority of patients (190, 76%) received intravenous contrast material during their examination.

Anxiety Assessment and Contributing Factors

Patient anxiety levels revealed significant variation across the study population. When assessed on a standardized scale, 49 patients (19.6%) reported minimal anxiety, 102 patients (40.8%) experienced mild anxiety, and 99 patients (39.6%) reported moderate anxiety levels (Table 2).

Table 2: Patient Anxiety Levels and Contributing Factors

Anxiety Assessment	Category	Frequency (n)	Percentage (%)
Pre-procedure Anxiety Level	Minimal	49	19.6
	Mild	102	40.8
	Moderate	99	39.6
Primary Reasons for Anxiety	Fear of results	93	37.2
	First-time experience	81	32.4
	Contrast injection concerns	71	28.4
	No anxiety experienced	5	2.0
During-procedure Anxiety	No anxiety	193	77.2
	Mild anxiety	25	10.0
	Moderate anxiety	32	12.8

Analysis of anxiety triggers revealed that fear of examination results was the predominant concern (93 patients, 37.2%), followed by first-time CT experience (81 patients, 32.4%) and concerns about contrast injection (71 patients, 28.4%). Only 5 patients (2.0%) reported experiencing no anxiety.

Interestingly, anxiety levels decreased significantly during the actual procedure, with 193 patients (77.2%) reporting no anxiety during scanning, while 25 patients (10.0%) experienced mild anxiety and 32 patients (12.8%) had moderate anxiety during the examination.

Physical Comfort and Environmental Factors

Patient comfort assessments revealed generally positive experiences across multiple domains. Regarding overall comfort during the CT examination, 127 patients (50.8%) reported feeling moderately comfortable, 92 patients (36.8%) felt somewhat comfortable, and 31 patients (12.4%) experienced high comfort levels (Table 3).

Table 3: Physical Comfort and Environmental Assessment

Comfort Domain	Rating	Frequency (n)	Percentage (%)
Overall Comfort	Very comfortable	31	12.4
	Moderately comfortable	127	50.8
	Somewhat comfortable	92	36.8
CT Table Comfort	Extremely comfortable	11	4.4
	Very comfortable	182	72.8
	Moderately comfortable	57	22.8
Room Temperature	Very comfortable	119	47.6
	Moderately comfortable	131	52.4

Comfort Domain	Rating	Frequency (n)	Percentage (%)
Scanner Noise Level	Very comfortable	185	74.0
	Moderately comfortable	65	26.0
Scan Duration	Very comfortable	130	52.0
	Moderately comfortable	120	48.0

Specific environmental factors were generally well-tolerated. CT table comfort received high ratings, with 182 patients (72.8%) reporting very comfortable experiences and 57 patients (22.8%) moderately comfortable. Room temperature satisfaction was evenly distributed between very comfortable (119 patients, 47.6%) and moderately comfortable (131 patients, 52.4%). Scanner noise levels were well-tolerated by most participants, with 185 patients (74.0%) feeling very comfortable with the acoustic environment.

Communication and Staff Interaction

Communication quality and staff interaction emerged as significant positive factors in the patient experience. All 250 patients (100%) rated the support provided by CT technologists as "very good" during their examination. Similarly, 100% of patients reported feeling "well informed" about what to expect during their procedure.

Table 4: Communication Quality and Staff Interaction Assessment

Communication Aspect	Rating	Frequency (n)	Percentage (%)
Technologist Explanations	Very good	183	73.2
	Good	67	26.8
Opportunity to Ask Questions	Good opportunity	162	64.8
	Adequate opportunity	88	35.2
Instruction Clarity	Very clear	175	70.0
	Moderately clear	38	15.2
	Slightly clear	32	12.8
	Somewhat clear	5	2.0
Support from Technologist	Very good	250	100.0
Pre-procedure Information	Well informed	250	100.0

The quality of procedural explanations was rated as very good by 183 patients (73.2%) and good by 67 patients (26.8%). Regarding opportunities to ask questions, 162 patients (64.8%) reported having good opportunities, while 88 patients (35.2%) felt they had adequate opportunities. Instruction clarity was rated as very clear by 175 patients (70.0%), with smaller proportions rating instructions as moderately clear (38 patients, 15.2%) or slightly clear (32 patients, 12.8%).

Overall Experience and Satisfaction

Patient satisfaction with the overall CT examination experience was notably high. A total of 178 patients (71.2%) rated their experience as "very good," while 72 patients (28.8%) described it as "good." No patients reported poor or fair experiences (Table 5).

Table 5: Overall Experience and Satisfaction Measures

Satisfaction Measure	Rating	Frequency (n)	Percentage (%)
Overall Experience	Very good	178	71.2
	Good	72	28.8
Likelihood to Recommend	Likely	162	64.8
	Somewhat likely	88	35.2
Waiting Time Satisfaction	Very satisfied	177	70.8
	Somewhat satisfied	73	29.2
Privacy Rating	Very good	206	82.4
	Excellent	22	8.8
	Good	22	8.8
Preparation Level	Well prepared	250	100.0

When asked about likelihood to recommend the CT service, 162 patients (64.8%) indicated they were "likely" to recommend the service, while 88 patients (35.2%) were "somewhat likely" to recommend it. Waiting time satisfaction was high, with 177 patients (70.8%) very satisfied and 73 patients (29.2%) somewhat satisfied.

Privacy during examination was rated highly, with 206 patients (82.4%) rating privacy as "very good," 22 patients (8.8%) as "excellent," and 22 patients (8.8%) as "good." All patients (100%) reported feeling "well prepared" for their examination.

Correlation Analysis

Statistical analysis revealed a significant correlation between CT table comfort and patient anxiety levels ($p<0.001$). Patients who experienced greater physical comfort on the examination table demonstrated significantly lower anxiety levels during the procedure. Among patients rating table comfort as "very comfortable," 85.7% experienced no anxiety, while those with moderate table comfort showed more distributed anxiety levels.

Discussion

This comprehensive cross-sectional study provides valuable insights into patient experiences during CT examinations, revealing both strengths in current practice and opportunities for enhancement. The findings underscore the complex interplay between technical competency, communication quality, and environmental factors in shaping patient perceptions of safety and satisfaction.

Anxiety and Psychological Response

The prevalence of moderate to high anxiety among 52.4% of patients aligns with previous research documenting significant psychological distress associated with CT imaging.[18],[19] The predominant anxiety triggers identified—fear of examination results (37.2%) and first-time experience (32.4%)—highlight the anticipatory nature of patient distress rather than procedural discomfort alone. This finding supports the work of Heyer et al., who demonstrated that patient anxiety often stems from diagnostic uncertainty rather than the imaging process itself.[20]

The substantial reduction in anxiety levels during the actual procedure (from 80.4% experiencing anxiety pre-procedure to only 22.8% during scanning) suggests that anticipatory anxiety often exceeds actual procedural stress. This pattern indicates that targeted pre-

procedural interventions addressing patient education and expectation management could significantly improve the patient experience.

The correlation between first-time CT experience and increased anxiety emphasizes the importance of comprehensive patient orientation for imaging-naive individuals. Healthcare providers should recognize that familiarity with the CT environment and process substantially influences patient comfort and cooperation.

Communication and Staff Interaction Excellence

The uniformly positive ratings for technologist support (100% "very good") and patient information provision (100% "well informed") represent remarkable achievements in patient-centered care delivery. These findings contrast sharply with many healthcare settings where communication deficits are frequently cited as sources of patient dissatisfaction.[12],[13]

The high quality of staff-patient interaction observed in this study likely contributes significantly to the overall positive patient experience ratings. Previous research has consistently demonstrated that empathetic, clear communication from healthcare providers can substantially mitigate patient anxiety and improve procedural tolerance.[21],[22] The finding that 73.2% of patients rated technologist explanations as "very good" suggests effective implementation of patient-centered communication practices.

However, the observation that only 64.8% of patients felt they had "good opportunities" to ask questions, while 35.2% reported merely "adequate opportunities," indicates potential for improvement in patient engagement and shared decision-making processes.

Physical Comfort and Environmental Factors

The generally positive ratings for physical comfort across multiple domains reflect thoughtful attention to environmental factors that influence patient experience. The finding that 72.8% of patients rated CT table comfort as "very comfortable" suggests appropriate attention to patient positioning and support during examinations.

The significant correlation between table comfort and anxiety levels ($p<0.001$) provides empirical evidence for the importance of physical comfort in patient experience. This relationship suggests that investments in patient comfort measures—such as improved table padding, positioning aids, or temperature control—may yield measurable improvements in patient satisfaction and cooperation.

The high tolerance for scanner noise (74% very comfortable) may reflect effective patient preparation regarding acoustic expectations or potentially the use of noise-reduction strategies. This finding contrasts with some previous studies reporting noise as a significant patient concern during CT examinations.[23] Recent research has emphasized the importance of environmental modifications and patient preparation strategies in improving comfort during diagnostic imaging procedures.[24],[25]

Patient Satisfaction and Service Quality

The exceptional overall satisfaction ratings (71.2% "very good," 28.8% "good") position this CT service among the highest-performing diagnostic imaging centers reported in the literature. The absence of any "poor" or "fair" ratings suggests systematic attention to patient experience across all aspects of service delivery.

The high likelihood of patient recommendations (100% either "likely" or "somewhat likely") indicates strong patient confidence in the service quality. This metric serves as a practical indicator of patient satisfaction and perceived value, with direct implications for healthcare reputation and patient retention.

The universal reporting of feeling "well prepared" for examinations reflects effective pre-procedural communication and patient education processes. This finding suggests successful

implementation of protocols ensuring patients understand what to expect before, during, and after their CT examination.

Clinical Implications and Quality Improvement

These findings have several important implications for clinical practice and quality improvement initiatives. First, the high prevalence of pre-procedural anxiety, particularly among first-time patients, argues for standardized anxiety screening and targeted interventions for high-risk individuals. Simple measures such as pre-visit education materials, virtual facility tours, or peer support programs could substantially reduce anticipatory anxiety.

Second, the correlation between physical comfort and anxiety levels suggests that investments in patient comfort amenities may yield measurable returns in patient satisfaction and clinical efficiency. Comfortable patients are more likely to remain still during imaging, potentially improving image quality and reducing the need for repeat examinations.

Third, the uniformly positive communication ratings demonstrate that excellent patient-provider relationships are achievable in high-volume imaging environments. The practices and protocols that produced these outcomes should be systematically documented and disseminated to other healthcare settings.

Limitations and Future Research

Several limitations should be acknowledged in interpreting these findings. The single-center design limits generalizability to other healthcare settings with different patient populations, staffing models, or resource constraints. The convenience sampling approach may introduce selection bias, potentially over-representing patients who are comfortable engaging with research activities.

The cross-sectional design provides a snapshot of patient experience but does not capture longitudinal changes in patient perceptions or the impact of specific interventions. Future research should employ longitudinal designs to track patient experience improvements over time and evaluate the effectiveness of targeted interventions.

Additionally, this study focused exclusively on patient perspectives and did not incorporate staff viewpoints or operational metrics such as examination efficiency or image quality outcomes. Future research integrating patient experience data with clinical and operational outcomes would provide a more comprehensive understanding of the relationships between patient satisfaction and overall care quality.

Recommendations for Practice

Based on these findings, several recommendations emerge for enhancing CT patient experience:

1. **Anxiety Management Protocols:** Implement systematic screening for patient anxiety and deploy targeted interventions for high-risk individuals, particularly first-time patients.
2. **Enhanced Patient Education:** Develop comprehensive pre-procedural education programs using multimedia approaches to familiarize patients with the CT environment and process.
3. **Physical Comfort Optimization:** Invest in patient comfort amenities such as improved table padding, temperature control, and positioning aids based on the demonstrated correlation between comfort and anxiety.
4. **Communication Training:** Maintain and enhance existing communication excellence through ongoing staff training in patient-centered communication techniques.

5. **Continuous Feedback Integration:** Establish systematic patient feedback collection and analysis processes to identify emerging concerns and monitor improvement initiatives.

Conclusion

This study demonstrates that positive patient experiences and high comfort levels during CT examinations are achievable through systematic attention to communication, environmental management, and care delivery processes. While patients commonly experience pre-procedural anxiety, excellent staff communication and environmental optimization can substantially enhance comfort and ensure positive experiences.

The findings underscore that patient experience in diagnostic imaging extends far beyond technical competency to encompass the human dimensions of healthcare delivery. The correlation between physical comfort and anxiety levels provides empirical support for investing in patient-centered amenities and protocols.

The uniformly positive ratings for staff communication and support demonstrate that patient-centered care is compatible with efficient, high-volume imaging operations. These achievements provide a model for other healthcare settings seeking to enhance patient experience while maintaining operational excellence.

Future research should focus on identifying specific interventions that can reduce pre-procedural anxiety, particularly among first-time patients, and evaluating the long-term impact of patient experience improvements on clinical outcomes and healthcare utilization patterns.

As healthcare continues to evolve toward greater patient-centeredness, the insights from this study affirm that technical excellence and compassionate care are not competing priorities but complementary aspects of high-quality healthcare delivery. The ultimate goal must be not merely to produce diagnostic images, but to ensure that every patient experiences comfort, feels informed, respected, and genuinely cared for throughout their healthcare journey.

References

1. Hounsfield GN. Computerized transverse axial scanning (tomography): Part 1. Description of system. Br J Radiol. 1973;46(552):1016-1022.
2. The Nobel Assembly. The Nobel Prize in Physiology or Medicine 1979. NobelPrize.org; 1979.
3. Kalra MK, Maher MM, Toth TL, Hamberg LM, Blake MA, Shepard JA, Saini S. Strategies for CT radiation dose optimization. Radiology. 2004;230(3):619-628.
4. Wolf JA, Niederhauser V, Marshburn D, LaVela SL. Defining patient experience. Patient Experience Journal. 2014;1(1):7-19.
5. Munn Z, Jordan Z. The patient experience of high technology medical imaging: a systematic review of the qualitative evidence. Radiography. 2011;17(4):323-31.
6. Quirk ME, Letendre AJ, Ciottone RA, Lingley JF. Anxiety in patients undergoing magnetic resonance imaging. Radiology. 1989;170(2):463-466.
7. Heyer CM, Thüring J, Lemburg SP, Kreddig N, Hasenbring M, Dohna M. Anxiety of patients undergoing CT imaging—an underestimated problem? AcadRadiol. 2006;13(6):694-699.
8. Ollivier L, Guisset AL, Noel G, Vignes S, Lambert JC, Guillemin F. Expectations and preferences of cancer patients regarding cancer imaging. Cancer Imaging. 2009;9(1):S18.

9. Flory N, Lang EV. Distress in the radiology waiting room. Radiology. 2011;260(1):166-173.
10. Nightingale JM, O'Brien BM, Murphy FJ. Exploring the lived experience of patients undergoing cardiac SPECT-CT. Radiography. 2012;18(4):220-225.
11. Lo Re G, et al. Anxiety and patient compliance in diagnostic imaging: A comparison among CT, MR, and ultrasound. Radiol Med. 2013;118(3):381-390.
12. Acuff SN, Bradley YC, Barlow P, Osborne DR. Reduction of patient anxiety in PET/CT imaging by improving communication between patient and technologist. J Nucl Med Technol. 2014;42(3):211-217.
13. Heyer CM, et al. Anxiety and CT scanning—follow-up study using STAI-S. AcadRadiol. 2015;22(8):1000-1005.
14. Shortman RI, Goldberg TE, Ryan A, Makanjuola D. Anxiety in patients undergoing PET/CT imaging. Clin Radiol. 2015;70(4):408-415.
15. Lo Re G, et al. Anxiety in radiology: Comparison across modalities. Radiol Med. 2016;121(9):709-716.
16. YıldızerKeriş H, Avcu N, Yılmaz AB, Demirtaş H. The effect of anxiety on motion artifacts in CBCT imaging. J Dent Sci. 2017;12(3):256-260.
17. Brandzel S, et al. Women's experiences of surveillance after breast cancer. Psychooncology. 2017;26(8):1130-1136.
18. Gückel B, Gatidis S, Martirosian P, Schwenzer NF. PET/MR vs. PET/CT: Patient experience. Eur J Radiol. 2018;107:76-81.
19. Wallin S, et al. Radiographers' experiences of risks and patient safety in imaging. Radiography. 2019;25(1):21-26.
20. European Society of Radiology (ESR), EFRS. Patient safety in medical imaging: A joint paper. Insights Imaging. 2019;10(1):1-12.
21. Sun M, et al. Virtual walk-throughs to reduce anxiety before PET/CT. J Nucl Med Technol. 2020;48(2):156-160.
22. Vieira R, et al. PET/CT imaging in oncology: Patient experience. Support Care Cancer. 2021;29(4):1853-1860.
23. Bwanga O, et al. Patient experiences in CT imaging: A systematic review. Radiography. 2022;28(1):89-96.
24. Ahmed A, et al. Comparing information methods to reduce CT anxiety. Radiol Technol. 2024;95(3):255-262.
25. Lange P, et al. Patient experience during contrast-enhanced CT. EurRadiol. 2023;33(3):1234-1242.