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Burnout level of personnel working in radiology departments in Hungary

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Methods and Materials: The number of examinations made on nursing home residents in 11 hospitals in Norway was collected for the year 2015, which involved five hospitals with mobile service facilities and six without. The data included anatomical region/organ/organ system, modality, and place of examination (hospital or nursing home). Using the 24,805 nursing home beds in the included areas as a proxy for residents, the utilization rates were compared in areas with and without mobile radiography services, using the chi-squared test.

Results: A total of 11,066 examinations, 0.45 per nursing home bed, was carried out. Of these, 87% were plain radiographs, 8% were CT scans and 4% were ultrasound examinations. In areas with mobile radiography services, the proportion was 50% per bed, compared to 36% in areas without, χ^2 (df=1, n=11,066)=470.39, p<0.001.

Conclusion: Mobile radiography services increase the overall utilization of examinations among nursing home residents significantly. Nonetheless, the rates of diagnostic imaging are still low compared to the rates for the Norwegian population in general, which is 0.9 examinations per person per year. This study clearly indicates an under-utilisation of diagnostic imaging among nursing home residents and suggests extended use of mobile services to be one possible remedy. This study has been submitted to BMC Geriatrics in 2018.

B-0031 11:34

Burnout level of personnel working in radiology departments in Hungary

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Purpose: Burnout phenomenon among healthcare professionals is the current problem. Burnout may have wide negative impact that can undermine personal and professional life of the individual, also the quality and the effectiveness of the healthcare system.

Methods and Materials: Radiology department workers who were members of the Hungarian Society of Radiographers were invited to participate in our online survey during June to September 2018. Maslach Burnout Inventory (MBI) and SF 36 survey was used to measure burnout levels and participants health status. Self-made questionnaire was made to determine demographic attributes. All data were analysed using SPSS V 24.0. Descriptive statistics, independent samples t test, ANOVA, Kruskal Wallis analysis were performed to examine the relationship between given demographic characteristics and the three dimensions of burnout at the significance level of p<0.05.

Results: Total of 404 radiology department workers participated in the survey with the average age of 40.08 years (SD12.18; 22-70). The sample had high mean burnout score for emotional exhaustion (34.28; SD 12.98) and depersonalisation (12.81; SD 6.62) compared to MBI norms. Personal achievement mean (41.03; SD 8.70) showed higher mean compared to MBI norms. Educational level, years spent in health care system, current financial situation had significant influence for all three dimensions of burnout (p<0.05). Type of workplace had significant impact on emotional exhaustion (p=0.001).

Conclusion: Our study indicates that high number of radiology department workers are experiencing occupational burnout at emotional exhaustion and depersonalisation dimension. These results vary according to demographic and work-related factors.

B-0032 11:42

VERTIM: pilot study evaluating influence of adding nature images in imaging departments' waiting rooms, according to different aesthetic approaches, on patients' perceived anxiety

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Purpose: Study about influence of physical environment of imaging departments' waiting rooms on pre-examination patients' perceived anxiety. The main objective is to estimate the difference in state anxiety, perceived by patients in 3 types of waiting room environment "Nature GREEN", "Nature SEA", "Nature ZEN" compared to a reference environment "Standard waiting room" and to evaluate emotional perception and satisfaction of patients for each environment.

Methods and Materials: 400 patients' anxiety score was measured by STAI-Y trait and state scales after 12 minutes' immersion time. Emotional perception for environment was evaluated by "Scale of the perceived attractiveness" of Sophie Rieunier and satisfaction of patient with digital analog scale.

Results: The "Nature GREEN" environment is the only one where it is observed a significant 10% decrease in state anxiety score compared to the reference group "Standard waiting room". This is also where patients' satisfaction score is the highest. Affective perception scores for environment are better in "Nature GREEN" and "Nature SEA".

Conclusion: "Nature GREEN" environment has proven its effectiveness in reducing patients' pre-examination anxiety in imaging department. A multi-centre study would be needed to establish evidence-based recommendations for care space design.

B-0033 11:50

Value-based practice (VBP) training for radiographers

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Purpose: Value-based practice (VBP) is the consideration of a patient's values in decision-making. VBP takes into account and highlights what matters to the patient. By patient values we mean the unique preferences, concerns and expectations each patient brings to a practice encounter which must be integrated into clinical decisions for the patient¹.

Methods and Materials: A small team made up of radiography educators have adapted materials from a VBP handbook, originally developed for medicine. The handbook, conceived by Professor Bill Fullford and Dr. Ashok Handa², has been adapted for use by diagnostic and therapeutic radiographers. The scenarios included in the text have been piloted with radiographers and undergraduates at study days and in teaching sessions. We are grateful to the participants for their input. Raising the awareness of values is essential to enable contemporary person-centred care. Sustainable implementation, however, depends on a whole-systems approach where patients are put at the centre of service delivery. The handbook introduces the concept and provides examples of individual values.

Results: We have facilitated two successful study days focused on VBP in radiography and teaching sessions with student radiographers.

Conclusion: Our aim has always been to share this material; we advocate that all radiographers must gain an understanding of VBP and adopt the approach in practice. The handbook acts as a method of raising awareness. The result is the beginning of VBP conversations in radiography; when embedded, VBP will provide assurance that we put the patient as the centre of everything we do.

10:30 - 12:00

Room X

Vascular

SS 215

Carotid plaque and neurovascular events

Moderators:

D.L. Tamoki; Budapest/HU
N.N.

B-0034 10:30

Comparison of ultra-high frequency US with contrast enhanced MR Angiography and conventional US in the evaluation of carotid atheromatous plaques

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Purpose: to compare diagnostic capabilities of an innovative ultra high frequency ultrasound (HFUS) system with conventional-US and Contrast Enhanced MR Angiography (CEMRA) in the evaluation of atherosclerotic carotid plaque in order to categorize stable vs unstable atheromas.

Methods and Materials: 16 carotid plaques (11 patients), causing at least a 30% luminal stenosis, were analyzed. Patients underwent to: Color-Doppler US, HF US and CEMRA. Parameters evaluated were: • Qualitative: Presence/absence hyperechoic spots and of hypoechoic core; fibrous cap (FC) delineation • Quantitative: main plaque and lipid core diameters; fibrous cap thickness

Results: HFUS was able to discriminate qualitative characteristics in all plaques. Quantitative values showed significant differences: using HFUS bigger dimensions were measured (mm 4.7-7.8, 6.7-8.7, 3.7-5.8 on three axes), as the lipid core (mm 0.8-2.1, 0.8-1.5, 1.2-2.4). FC thickness showed specific values on High Frequency US (0.10-1.5 upward; 0.45-1.7 downward) while it was clearly assessable only in 3 patients at conventional US. MRI showed always the FC but a precise dimension was never assessable.

Conclusion: HFUS is a reliable technique in defining qualitative and quantitative carotid plaque features, highlighting dimensions of the plaque, size of the lipid component, and thickness of the fibrous cap, known as most important predictors of atheroma vulnerability. Moreover this new technique has good reproducibility, fast speed of execution and good spatial resolution, in the absence of ionizing radiation.

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