



SOCJETA'  
TAR-RADJOGRAFI MEDICI  
- MALTA -

# **SRM'S INTERNATIONAL CONFERENCE ON MEDICAL IMAGING AND RADIOTHERAPY**

**7TH – 9TH FEBRUARY 2020**

## **BOOK OF ABSTRACTS**

**[radiographersmalta.com](http://radiographersmalta.com)**

**[doi.org/10.14614/RADINTCONFMALTA/2020/](https://doi.org/10.14614/RADINTCONFMALTA/2020/)**

THIS CONFERENCE WAS ONLY POSSIBLE WITH THE SUPPORT OF:



Co-funded by the Erasmus+ Programme of the European Union



MINISTRY FOR FINANCE



The European Commission support for the production of this publication does not constitute endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein

of the treatment (fatigue, diarrhoea and skin issues). Management of time was the most noteworthy practical problem, while family and spirituality issues were rarely identified.

Male, single patients, patients with breast cancer, with more than two children and with children less than 18 y.o. showed a higher distress average. The distress level also decreased between the first and last week of treatment. Patients who perceived the need for further support were found to have a lower average distress level. However, none of these results were statistically significant.

**Conclusion:** Emotional problems, followed by physical and time-management issues, are the problems most associated with distress. Awareness of these may help to access the patient better and decrease distress. Nevertheless, it was not possible to identify any individual factor that directly affects distress, confirming that distress is multifactorial.

## **NUTRITIONAL SUPPORT IN CANCER PATIENTS: RADIOGRAPHERS' PERCEPTIONS**

Angelina Y. Dimitrova<sup>1</sup>, Dr Petra Jones<sup>2</sup>, Gerrit Albertus van Dijk<sup>1</sup>

*1 Department of Radiography, Faculty of Health Sciences, University of Malta, Msida, Malta; 2 Department of Food Sciences and Nutrition, Faculty of Health Sciences, University of Malta, Msida, Malta*

[angelina.y.dimitrova@gmail.com](mailto:angelina.y.dimitrova@gmail.com)

**Purpose:** This study aimed to explore the perceptions of radiographers working in a local Oncology Centre in regard to their ability to identify patients needing nutritional advice and to provide patients with the appropriate dietary support. Compatible body of literature is limited with no similar studies previously conducted in the local setting.

**Methodology:** A cross-sectional, prospective, non-experimental method, using a quantitative approach was employed. An existing questionnaire was modified, using published guidelines to suit the aim of this study, and distributed to all radiographers working in the Radiotherapy Department of the selected Oncology Centre. The data was analysed using descriptive statistics.

**Results:** With a response rate of 85% (22 completed questionnaires), 86% (n = 19) of respondents indicated that patients asked for advice on nutrition-related issues. 36% (n=8) of the participants did not have previous training on nutritional interventions whilst all participants expressed interest in receiving additional information or training to provide support in the nutritional management of side effects and to identify cases needing referral to a dietitian. 82% (n=18) of participants stated that a protocol for referrals to dietitians was available at their clinical site, however, only two respondents indicated

that they referred patients to a dietitian. All radiographers self-rated as knowledgeable in identifying patients in need of dietary interventions and delivering the appropriate nutritional support. This was supported by the high level of agreement between literature recommendations and radiographers' responses to the questionnaire.

**Conclusions:** Findings suggest that radiographers perceive themselves as knowledgeable and provide patients with the appropriate nutritional support in accordance with literature. However, only two radiographers referred patients to dietitians and all radiographers indicated that they would like additional support. The researcher, therefore, proposed additional training, implementation of scripted nutritional advice and further studies into the lack of referrals to the dietetic team.

## **POTENTIAL FOR CT DOSE REDUCTION BASED ON QA PHANTOM AND HUMAN CADAVER IMAGES**

I. Garba (1), F. Zarb (1), M.F. McEntee (2), S.G. Fabri (3)

*1-Department of Radiography, Faculty of Health Sciences, University of Malta; 2-Department of Radiography, University College Cork, Dublin, Ireland; 3-Department of Systems & Control Engineering, Faculty of Engineering, University of Malta*

[igarba.radg@buk.edu.ng](mailto:igarba.radg@buk.edu.ng)

**Purpose:** CT centres having higher radiation doses when compared to many CT centres locally and internationally have been identified through a nationwide dose survey carried in Nigeria for CT examinations of the brain, chest and abdomen. This provides a basis for dose reduction methods to be explored. This study proposes a methodology using a quality assurance (QA) phantom and human cadaver images.

**Materials and methods:** The study proposes a methodology consisting of three phases. Phase I: Manipulation of scan parameters to monitor their effect on radiation dose indices and psychophysical parameters using a GE QA phantom, leading to determination of the optimal parameter settings. Phase II: Application of the identified optimal QA phantom protocols on the human cadaver as a starting point for further optimisation, which was followed with analysis of results based on VGA, VGC and VGR from evaluation of cadaveric images. Phase III: Clinical implementation of the finally optimised protocols and further image quality evaluation based on VGA, VGC and VGR.

**Results:** Fifteen adult QA optimised protocols were established in five CT centres. Of the 15 QA phantom protocols, nine protocols from three centres were tested on cadaver as two of the centres did not give permission for cadaver scanning. Of the nine protocols, six were further