contamination. Wipes were analysed by ultra-performance liquid chromatography tandem-mass spectrometry for 10 ANPs. Limits of detection (LOD) varied by a factor of 10 according to sampled area and ANP. Descriptive statistics are presented here.

Result Overall, 11 of the 16 types (68.8%) of sampled surfaces were above the LOD for at least one ANP; gemcitabine and cyclophosphamide were most often identified (30.6% and 29.8% of samples respectively), followed by 5-fluorouracil and irinotecan (both 15.6% above LOD). Highest levels were all found in the outpatient clinic: 5-fluorouracil (49 ng/cm²) and irinotecan (3.6 ng/cm²), toilet floor; cyclophosphamide (19.6 ng/cm²), IV pump; gemcitabine (4.97 ng/cm²), cytotoxic waste bin cover. Hand wipes were above the LOD for five of seven nurses, one of seven pharmacy personnel and none of three sampled HS workers.

Discussion A notable proportion of surfaces showed measurable levels of ANPs, with highest concentrations on surfaces cleaned by HS personnel. Prevention programs should integrate regular monitoring of hospital surfaces in order to evaluate environmental contamination and sharing monitoring results with all concerned personnel, together with appropriate training, in order to raise their awareness of ANP exposures.

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APPRAISAL OF WORK ABILITY IN RELATION TO JOB-SPECIFIC HEALTH REQUIREMENTS IN AMBULANCE WORKERS

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Introduction To gain insight into which job-specific health requirements relate to self-estimated work ability, the following two research questions were formulated: *Which job-specific health requirements are associated with the appraisal of work ability in ambulance drivers and paramedics? How are appraisals of physical and mental work ability associated with the appraisal of overall work ability in ambulance drivers and paramedics?*

Methods Workers Health Surveillance cross-sectional data of 506 ambulance workers (236 drivers and 270 paramedics) were used. The outcomes for specific job requirements were divided into six categories; 'having raised alertness and judgment ability', 'dealing with emotional peak load', 'to perceive and communicate', 'job-specific physical abilities', 'skin complaints' and 'respiratory complaints'. Work ability was appraised as overall, physical and mental/emotional. Multiple linear stepwise regression analyses were used to model the associations.

Result Outcomes in 'raised alertness and judgment ability' (R²=0.09), 'job-specific physical abilities' (R²=0.10) and 'emotional peak load' (R²=0.07) significantly explained appraised overall, physical and mental/emotional work ability (p<0.01). Physical and mental/emotional work ability together explained 48% of the variance in overall work ability. The explained variance by physical and mental/emotional work ability was almost 4% higher in drivers than in paramedics.

Discussion The appraisal of overall work ability was significantly explained by outcomes in 'raised alertness and judgment ability' and 'emotional peak load.' Physical work ability was significantly explained by 'job-specific physical abilities' and

'raised alertness and judgment ability' outcomes, while 'emotional peak load' and 'raised alertness and judgment ability' outcomes significantly explained mental/emotional work ability. Physical and mental/emotional work ability explain the same proportion of variance in overall work ability.

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HEALTH CARE WORKERS' SAFE PATIENT HANDLING AND MOVEMENT KNOWLEDGE: A CROSS-SECTIONAL STUDY IN A DEVELOPING COUNTRY

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Introduction Healthcare workers worldwide present a high prevalence and incidence of low back pain due to manual patient handling tasks. Although education encourage the use of safe patient handling procedures, there is a lack of research about safe patient handling knowledge in developing countries. Therefore, the purpose of this study was to examine both levels of knowledge and factors associated with a good knowledge score among healthcare workers of a developing country. **Methods** This was a cross-sectional study with 292 healthcare workers from the University Hospital of Botucatu Medical School. A knowledge score was generated based on participant responses to a structured questionnaire, with a score of 70% or higher indicating good knowledge. Frequency statistics and logistic regression were conducted to analyse the data.

Result The majority of participants did not achieve a good level of knowledge (81,5%). Only 54,1% were aware of the high risk presented by patient-handling tasks. Most participants (84,8%) were not knowledgeable of the recommended maximum weight limit for use in patient-handling tasks, 62,3% and 53,4% answered that relying on proper body mechanics and that the use of back belts are effective prevention methods, respectively. The knowledge gap was most prominent in the domain of safe patient handling, only 2,4% of participants answered correctly all questions regarding this topic. Regarding the associated factors towards a good level of knowledge, the only significant relationship in univariate as well as multiple logistic analysis was level of education, being less educated – elementary or high school education – was a significant predictor of lower levels of knowledge (OR=4.776, 95% CI: 1.056 to 21.600).

Discussion A substantial knowledge deficit was identified among healthcare workers in our study. Policies and education campaigns to increase knowledge and improve preventive practices should be developed.

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PREVALENCE OF THYROID DISEASES IN AN OCCUPATIONALLY RADIATION EXPOSED GROUP: A CROSS-SECTIONAL STUDY IN A UNIVERSITY HOSPITAL OF SOUTHERN ITALY

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Introduction Thyroid diseases occur more frequently in people exposed to ionising radiation (IR) for therapeutic purposes

and to nuclear fallout, but relationship between occupational exposure to IR and thyroid pathologies still remains unclear.

Methods We ran a cross-section study to investigate whether healthcare workers routinely exposed to low-level IR had a higher prevalence of thyroid diseases. After giving written consent, 285 exposed workers (168 more exposed or 'A category' and 117 less exposed or 'B category') and 599 non-exposed were enrolled during routine examination at the Occupational Health Unit, programmed to monitor their health status. All subjects worked in the same university hospital and lived in the same geographical area of mild iodine deficiency. They were interviewed to fill in an anamnestic questionnaire (concerning to lifestyles, weariness habits and thyroid diseases risk factors) and underwent a physical examination, serum determination of fT3, fT4 and TSH, US neck scan and fine needle aspiration biopsy. Statistical analysis was performed using adjusted prevalence ratio (adPR) with software STATA 14.

Results Prevalence of thyroid diseases resulted statistically higher in exposed workers compared to controls (37% vs 30%, adPR 1.63; 95% CI: 1.34 to 1.97). In particular, thyroid nodularity prevalence in exposed group was about twice as higher than controls (28% vs 14%; adPR 2.67; 95% CI: 2.03 to 3.50). Any statistical association was found between IR exposure and malignant thyroid neoplasms (adPR 0.74; IC95% 0.18–3.02). At multivariate analysis, female gender, age and familial history of thyroid diseases were significant risk factors.

Discussion In our study, mildly IR exposed health workers had a statistically higher thyroid diseases prevalence than control group, even though no difference was found between A and B categories. Results likely are due to closer and more meticulous health surveillance program carried out in IR exposed workers, allowing to identify thyroid alterations earlier than non-exposed health staff.

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STAFF COUNSELLING AND CONSULTATION IN AN ACUTE HOSPITAL SETTING. THE VALUE OF EVIDENCE BASED PRACTICE

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Introduction The Staff Counselling Service (SCS) promotes positive mental health and motivation by providing counselling, consultation, critical incident stress management (CISM) psycho-educational services, and Mindfulness Based Interventions (MBI's) to all staff in an acute hospital setting. An evaluation of the core counselling service commenced in 2016, to gather data on presenting issues and to ascertain the effectiveness of the service.

Methods Contextual statistical data such as client occupation, presenting issue, work related presentations (per Health Services Executive Management standards) are recorded and treatment outcomes are tracked via a web based Feedback Informed Treatment (FIT) system. Clients complete an Outcome Ratings Scale (ORS)1 at the beginning of each session to indicate their perception of how they are functioning and complete a Session Ratings Scale (SRS)2 at the end of each session scoring their experience of the session.

1 2000, Scott D. Miller and Barry L. Duncan

2 2000, Scott D. Miller and Barry L. Duncan

Results In 2016, 21% of presenting cases were 'Work Related', the remaining 79% were 'Personal' or 'Both' (work and personal). A breakdown of Work Related issues show 33% due to Relationship issues; 21% Support issues; 19% 'CISM'; 16% 'Demands' with the remaining 11% relating to Role, Investigations and Work Injury. The average intake scores indicate that presentations were in line with scores typical for Out Patient Mental Health Settings. Client progress for those still in counselling were 2 times better than no treatment. For those who had completed counselling, progress was 5 times more than no treatment and above average compared to International clients with identical intake scores.

Discussion Data suggests that this is an effective counselling service. From a clinical perspective FIT facilitates ongoing collaboration and case review with clients. Low ORS scores can prompt timely onward referral to Occupational Health Physicians, allowing for clear dialogue, referencing measures which are easily understood. Work related presentations appear to support the ongoing provision of SCS interventions as a means of creating greater emotional intelligence and improving relationships.

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ASSESSING AND MANAGING JOB STRESS IN EMERGENCY DEPARTMENTS: WHICH TARGETS FOR IMPROVEMENT INTERVENTIONS?

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Introduction The changes in the organisation of the healthcare system, actually involving the Italian healthcare hospital departments, triggered by the current economic crisis, in addition to ongoing technological innovation and developments in society, increase the exposure of healthcare workers (HCWs) to work related stress (WRS). Emergency Department (ED) workers are particularly vulnerable to WRS as a consequence of specific occupational risk factors typical of ED's healthcare professions.

Methods The authors conducted an integrated analysis of stress sentinel indicators and of objective stress factors of occupational context and content areas, among nurses and physicians of three Italian hospital EDs, in accordance to the multidimensional validated tool developed in Italy by National Network for Prevention of Work-Related Psychosocial Disorders. The aim of this observational study was to analyse the level of WRS after improvement interventions implemented by the management staff of EDs which focused on work context factors.

Results The assessment of WRS showed that nurses and physicians of the investigated EDs were exposed to a medium level of risk; the improvement interventions aimed at reducing WRS and focused on the following work context factors:

- Function and organisational culture;
- Role within the occupational organisation;
- Relationship at work, resulted significantly effective in minimising the risk of WRS.

Discussion In this study the implementation of improvement interventions focused on team development, safety training programs and adoption of the ethics code for healthcare