351 CHANGE IN EMPLOYABILITY FOLLOWING BARIATRIC SURGERY FOR MORBID OBESITY

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Objectives This is a pilot report of the first 75 respondents undertaken as part of a larger study to assess if there is improvement in employability after bariatric surgery.
Methods An assessment of 75 patients who had undergone bariatric surgery between January 2005 and Dec 2008. Case note data extraction and a patient questionnaire was used to collect demographic data, pre-op and post-op morbidity, employment status and benefits being received.
Results 59 (79%) of the respondents were female. The average age at the time of the bariatric surgery was 44 years. The average pre-operative BMI was 49 and post-operatively 38 ($p < 0.05$); mean duration since operation of 5.6 years. Pre-operatively there was 151 obesity related co-morbidities and 63 (42%) post-operatively ($p < 0.05$). Total number employed pre and post operative was 53 (71%) and 47 (63%) respectively (non-significant). In the group employed pre-operatively, 39 (74%) remained employed post-operatively, 6 (11%) became unemployed sick/disabled, 4 (8%) became economically inactive due to looking after family/care/voluntary work, 2 (4%) retired, 1(2%) became a student and 1 (2%) was unemployed but seeking work. In the pre-operative group who were un-employed sick/disabled, 8 (73%) remained sick/disabled, 2 (20%) were now employed and 1 (9%) was unemployed but seeking work. A total of 59 state benefits where being received at the pre-operative stage and this only decreased a small amount to 56 ($p = 0.38$).
Conclusions The study suggests that despite improvements in BMI and co-morbidity there were non-significant changes in post-operative employment, the majority of the unemployed-sick disabled pre-operatively remaining unemployed sick/disabled post-operatively and there was a negligible decrease in benefits being received. An intervention study on the impact of vocational rehabilitation on retrun to work post bariatric surgery is needed to identify the rate of employment which can be improved by such action.

Session: 25. Shift work and health

352 NIGHT WORK AND RISK OF HORMONE RECEPTOR-DEFINED BREAST CANCER

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Objectives In 2007, the International Agency for Research on Cancer categorised shift-work that involves circadian disruption as probably carcinogenic to humans. oestrogen and progesterone are believed to play a central role in the development of breast cancer. Although several plausible biologic mechanisms of a relationship between night work and breast cancer have been postulated, the particular breast cancer subgroups have not been adequately examined. The objective of this study was to investigate whether night work is related to breast cancer receptor status.
Methods The effect of night work on the risk of oestrogen receptor- (ER) and progesterone receptor- (PR) defined breast cancers was evaluated in 513 nurses, diagnosed between 1996 and 2007, and 757 frequency-matched controls, all selected from a cohort of Norwegian nurses, using polytomous logistic regression. Odds ratios for the exposure "duration of work with minimum 6 consecutive night shifts" were compared for tumour subgroups with respect to the common control group.
Results Statistically significant associations were observed between the highest exposure to night work (≥ 5 years with ≥ 6 consecutive night shifts) and breast cancer, the largest increase observed for PR+ tumours (odds ratio: 2.4, 95% confidence interval: 1.3, 4.3, P-trend = 0.01). No significant odds ratio heterogeneity was found for the night work variable between the different receptor-defined tumour subgroups when using 4 exposure categories. When dichotomising the exposure variable (ever/never worked ≥ 6 consecutive night shifts), a borderline statistically significant heterogeneity was seen between PR+ and PR- tumours in postmenopausal women.
Conclusions The association observed between long duration with many consecutive night shifts and PR+ cancers, suggests that progesterone may play an important role in the detrimental effects of night work.

353 NIGHT-SHIFT WORK AND RISK OF BREAST CANCER: A META-ANALYSIS

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In 2007, the International Agency for Research on Cancer classified shift work that involved circadian disruption as probably being carcinogenic to human breast cancer (Group 2A), which bases on limited epidemiological evidence. Five relevant epidemiological studies have been published since 2007. However, a systematic and quantitative assessment of published studies is not available.

Three cohort and seven case-control studies were identified from the MEDLINE database from 1970 to August 2012 without restrictions and by reviewing reference lists from retrieved articles. Studies that reported relative risk estimates with 95% confidence intervals (CIs) for the associations of interest were included. Except the duration of night-shift, available data of night-shift frequency and cumulative night-shift were also extracted from these studies. Summary estimates of association were obtained using the fix or random-effects models.

The pooled relative risk (RR) per 5-year of night-shift was 1.05 [95% confidence interval (CI): 0.87–1.28] for night-shift work duration. Cumulative night-shift was positively associated with breast cancer risk (RR = 1.13 per 500 night-shift; 95% CI = 1.07–1.21; four studies), night-shift frequency was not associated with breast cancer risk (RR = 1.01 3-shift/month, 95% CI = 0.99–1.03; three studies).

Findings from this meta-analysis indicate that cumulative night-shift is positively associated with breast cancer risk, although the night-shift work duration didn't associate with breast cancer risk. Night-shift frequency is not associated with breast cancer risk. Further studies are needed to confirm these findings.

354 CORRELATIONS BETWEEN NIGHT SHIFT WORK AND THE DEVELOPMENT OF BREAST CANCER: SYSTEMATIC REVIEW