HT3-receptor antagonists (RAs) for moderate- to high-risk radiotherapy and radio–chemotherapy regimens.1 A survey was recently conducted in Europe to assess prescribing patterns and factors affecting treatment decisions for RINV. The results from a questionnaire completed by 200 radiation therapists/oncologists from 5 countries will be presented. Respondents were screened to ensure that they saw more than 50 patients/month, and that at least 50% of these patients were at moderate to high risk of RINV. The results suggest that the 5-HT3-RAs are underused – of 93 cancer patients treated with radiotherapy in an average month, only 1/3 were treated with these agents. Nor was there much of a perceived increase in 5-HT3-RA use since the previous year, with 62% of respondents indicating that their use of 5-HT3-RAs had remained the same. Use of the 5-HT3-RAs varied with treatment region, with the highest proportion of use among patients receiving radiotherapy for gastro-intestinal (53%) or abdominal (51%) cancers. Ondansetron was the most frequently prescribed antiemetic (41%), followed by granisetron (24%) and metoclopramide (20%). Efficacy and lack of side-effects were rated as the two most important factors when choosing a particular agent, though efficacy and experience were the main reasons given for prescribing ondansetron. The results show low levels of 5-HT3-RA prescribing in Europe, and their use may sometimes stem from familiarity. Metabolic and pharmacodynamic differences in the 5-HT3-RAs have implications for effective treatment of particular patient groups such as the elderly, for whom issues such as comorbidity and polypharmacy may have profound effects on the efficacy and safety of individual agents. Such factors will therefore require consideration when determining which agent to use. Increased awareness of evidence-based guidelines on emetogenic risk factors and recommended treatment, as well as of the efficacy and safety profiles of the various 5-HT3-RAs, could substantially improve control of nausea and vomiting in radiotherapy-treated patients.

Reference

[1] Gralla et al. J Clin Oncol 1999; 17: 2971–94

930 POSTER

The efficacy and safety of lanreotide (28-day prolonged release) in relieving clinical symptoms associated with carcinoid tumours: a 6-month, open, multicentre, dose-titration study

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Background: 28-day prolonged release (PR) lanreotide (Autogel® is a new aqueous gel formulation of this somatostatin analogue. It is presented as a prefilled syringe (injection volume <0.5ml) given by deep subcutaneous (sc) injection, and demonstrates a sustained release with duration of benefit of 28 days. The aim of this study was to investigate the efficacy and safety of 28-day PR lanreotide (Autogel® in the control of diarrhoea and/or flushing associated with carcinoid tumours.

Materials and Methods: 71 patients with symptomatic carcinoid tumours were recruited who had recorded 3 or more stools per day and/or 1 or more moderate/severe flushes per day over the week prior to first treatment. The most troubling symptom for each patient at baseline was identified as the target symptom. Patients received a deep sc injection of 28-day PR lanreotide (Autogel® 90mg, every 28 days for 2 months. The dose was then titrated down to 60mg if the patient was a responder, or up to 120mg if a non-responder. Responders (defined as a reduction of 50% or more from baseline of the mean daily number of episodes of the target symptom) could have monthly dose titrations thereafter.

Results: Diary card symptom assessments showed significant improvement from baseline (flushing 3.0±3.2; diarrhoea 5.0±2.7) throughout the study (Table). By the end of the study 25/31 (81%) flushing and 30/40 (75%) diarrhoea patients showed an improvement from baseline. Tumour marker levels also improved, so that by Month 6 the median 5-HIAA and Chromogranin A levels had decreased from baseline by 24% and 38%, respectively. The diarrhoea subscale of the EORTC-C30 questionnaire indicated a 33% improvement from baseline. For all data analyses, any missing data were imputed using the last observation carried forward method.

	Month					
	1	2	3	4	5	6
Flushing (n=31)						
Mean (SD) Episodes	2.2(2.5)	1.9(2.8)	1.8(3.0)	1.7(3.0)	1.7(3.1)	1.7(3.0)
Δ from Baseline	-0.8 (-21%) p=0.006	-1.1 (-48%) p<0.001	-1.3 (-56%) p=0.001	-1.3 (-56%) p=0.001	-1.3 (-57%) p<0.001	-1.3 (-56%) p=0.001
Responders (%)	39%	58%	61%	71%	65%	65%
Diarrhoea (n=40)						
Mean (SD) Episodes	4.1(2.3)	4.0(2.2)	4.0(2.2)	3.9(2.2)	3.8(2.3)	3.9(2.2)
Δ from Baseline	-0.9 (-15%) p<0.001	-1.0 (-18%) p<0.001	-1.0 (-16%) p<0.001	-1.2 (-20%) p<0.001	-1.2 (-21%) p<0.001	-1.1 (-19%) p<0.001
Responders (%)	8%	13%	13%	15%	23%	18%

The incidence of the most common drug-related adverse events were abdominal pain (20%), fatigue (13%), diarrhoea (11%) and cholelithiasis (10%).

Conclusions: 28-day PR lanreotide (Autogel® was effective in reducing flushing and diarrhoea associated with carcinoid neuroendocrine tumours. The degree of improvement and safety profile are consistent with previous studies with other formulations of lanreotide.

931 POSTER

Reflexology for symptom relief in patients with cancer: a Cochrane systematic review

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Background: Reflexology is defined as the systematic application of pressure to specific reflex points on the feet (or hands) and is employed in cancer and palliative care largely to improve patients' quality of life and reduce psychological distress. The aim of the study is to investigate whether reflexology decreases psychological morbidity, symptom distress and/or improves the quality of life in patients with a cancer diagnosis.

Methods: Comprehensive search strategy developed, utilising databases including: Cochrane Controlled Trials Register, Database of the Cochrane Complementary Medicine Field, MEDLINE, CINAHL, BNI, EMBASE, AMED, PsycINFO, SIGLE, CancerLit, Dissertation Abstracts International. Experts in the field of complementary therapies contacted and hand searches of relevant journals undertaken.

Results: 312 articles retrieved. Only 7 merited in-depth examination: *Excluded* - Dobbs-Zeller 1986 - based on anecdotal evidence, Shatkina 1991 - no control group, Yung 1993 - not randomised & no baseline data collection. Insufficient information available for decision - (Sabia 1992). *Included* - Hodgson 2000 and Stephenson 1997, 2000 (both references reflect one study only).

Conclusions: Preliminary analysis concluded that although the available evidence is limited, it does suggest that reflexology can confer some physical and psychological benefits to people with cancer, over those offered by a foot massage or no-intervention control. However, a number of methodological issues still require resolution: sample sizes were small and follow-up periods very limited; possibility for bias occurred in both studies with unclear randomisation methods, lack of allocation concealment and in one study, interventions and outcomes assessed by same person. Neither study assessed side effect profiles.

932 POSTER

French physicians' attitudes toward legalisation of euthanasia and the ambiguous relation between euthanasia and palliative care

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Background: In France, euthanasia is strictly forbidden by law. In 1999, the Parliament established a "right to palliative care", which has reactivated public debates about euthanasia.

Methods: A cross-sectional survey of a stratified probability sample of 1,552 French GPs, oncologists and neurologists, conducted in 2002.

Findings: Overall, 917 physicians (response rate, 59.1%) participated in the survey. Oncologists were less likely than GPs and neurologists to consider that high dose morphine prescription, palliative sedation and withdrawing life-sustaining treatments (WLST) were euthanasia. Oncologists are also less prone to support the legalisation of euthanasia (OR=0.68, CI 95%= [0.49;0.94]). Multivariate analysis showed that this result is due to oncologists' greater experience and training in palliative care.

Interpretations: In France, physicians' attitude about the legalisation of euthanasia is strongly influenced by whether they distinguish palliative care from euthanasia or not. Improved palliative care requires better training of the entire medical profession and clearer guidelines about which end-of-life care practices are legally and ethically acceptable.

933 POSTER

Incidence and burden of chemotherapy-induced nausea and vomiting in the context of current Canadian practice

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Background: Chemotherapy-induced nausea and vomiting (CINV) is a major side effect of cancer treatment. Despite the development of the serotonin-antagonists, CINV continues to be a substantial problem for patients receiving emetogenic chemotherapy treatment, especially with regimens defined as highly emetogenic (CTx).

Objective: To estimate the incidence of CINV in the context of current practice in Ontario and Qu ebec and to measure its impact on patients' daily activities.

Methods: Patients scheduled to receive a highly emetogenic chemotherapy regimen (level 5 on the Hesketh's scale) were recruited from three oncology centers in Canada. They were provided with a 5-day dairy to determine the extent of CINV following CTx. To reflect current practice, no specific antiemetic regimen (prophylactic or rescue) was imposed in this study. Patients received the antiemetic treatment as usually prescribed by their physician.

Results: Of the 142 patients recruited so far, 129 (91%) completed and returned their dairy. On day 1 (acute emesis), 23% of patients reported nausea (N) or vomiting (V). From day 2 to day 5 after chemotherapy (delayed emesis), 41% reported N or V. For the overall 5-day period 33% of patients reported V at least on one day while N was reported at least on one day by 35% of the patients. No significant differences were found according to age, gender or treatment center. Those who experienced N or V were on average unable to carry out their daily activities for an average duration of 17.5 hours (SD = 25), because of N or V. Also, friends or relatives of these patients had to spend an average of 8.5 hours (SD = 20) helping these patients because of N or V.

Conclusion: Despite modern antiemetic treatments, CINV is still a significant problem in the acute and especially, in the delayed phase, in the context of current practice in Canada.

934 POSTER

Improvements in pain and functional interference following palliative radiotherapy for painful bone metastases: an analysis of brief pain inventory assessments

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Background: The self-assessed Brief Pain Inventory (BPI) is a validated instrument with four 0-10-point pain severity questions and seven functional interference items (0=no interference, 10=complete interference). This study describes treatment outcomes as evaluated by the BPI following palliative radiotherapy (RT) and determines how they might relate to subjective quality of life (QoL) changes.

Methods: 33 unselected patients with bone metastases (15 breast, 11 prostate, 7 others) undergoing 39 courses of palliative RT (external beam 38, 89-Sr 1) completed the BPI before and 4 weeks after RT. A non-leading, dichotomized (yes/no) question of whether quality of life changed after radiotherapy was added to the questionnaire at follow up. Median external beam dose was 8 Gy single fraction (range 6 Gy to 30 Gy/10 fractions). Type and dosages of opioid analgesics were converted to morphine-equivalent dose (MED).

Results: The average pre- and post-treatment "worst pain" scores were 6.9 (SD 1.9) and 4.0 (SD 2.8), respectively ($p<0.001$). Overall response rate defined as reduction of worst pain score by 2 or more, without increase in MED, was 56% (22/39 treatments). Of the 39 treatments, 20 resulted in subjective change and better QoL: 13/20 were associated with pain reduction, but 7/20 had no obvious pain relief. Patients with better QoL experienced slightly greater reduction in worst pain score (mean change 3.1) than patients with no change or worse QoL (mean change 2.1), though not statistically significant ($p=0.35$). However, patients with better QoL reported a greater improvement in functional interference (mean change 2.3) than patients with no change or worse QoL (mean change 0.5), almost reaching statistical significance ($p=0.068$).

Conclusion: Improvement in pain intensity after RT is not necessarily associated with better QoL. Possible reasons will be discussed. Functional interference determined by the BPI appears to be a better predictor of improvement in QoL and may serve as an alternative outcomes measure for palliation. More data is needed to validate this observation.

935 POSTER

Neglected information needs of breast cancer patients and spouses

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Goal. This study investigated breast cancer patients and their spouses views on cancer related information in two settings, at the department of oncology and at the rehabilitation course.

Patients and methods. Patients and spouses surveyed at the clinic (AD, 56 patients, 28 spouses) were compared with those participating at a rehabilitation course (RC, 57 patients, 44 spouses). Logistic regression models were used to adjust for differences in demographic characteristics between the groups.

Results. In both groups the same proportion of patients reported to have felt involved in decision making sufficiently (60%), inadequately (27%), and 19% vs. 16% did not want to be actively participating in decision making. Eighty per cent of AD and 31% of RC patients were content with the available information ($p<0.001$) and 75% of AD spouses and 43% of RC spouses reported similarly ($p=0.008$). Higher education, younger age and shorter time (<1 year) since diagnosis indicated a greater need for information among patients, whereas among spouses only education level was associated with it. More information was needed on prognosis, cancer as a disease, its influence on daily life and treatment effects. Sixty-one % of couples agreed on the information obtained (kappa=0.221). In 36% of couples both the patient and her spouse reported to have received sufficiently information and in 26% they received insufficient amount of information. Spouses preferred physicians as key information providers.

Conclusion. This study revealed information needs, which were not met by the physicians, among breast cancer patients and their spouses. The expectation on the physician's role by breast cancer patient and her spouse includes that of a specialist giving the best possible treatment and providing realistic information both for the patient and her spouse.

936 POSTER

Long-term salivary output and quality of life in patients with head and neck cancer treated with radiotherapy

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Background: Quality of life and xerostomia have become important issues in the treatment of head and neck cancer. However, the long-term relationship between the individual's perception of a dry mouth, the objective salivary flow measurement and the quality of life has not been clearly defined.

The aim of this study was to describe the quality of life and the relation with salivary output in long-term survivors of head-and-neck cancer treated with radiotherapy with curative intent.

Material and methods: Forty-four patients with head-and-neck cancer treated with primary or postoperative radiotherapy, completed the European Organization for Research and Treatment of Cancer (EORTC) Quality of Life Questionnaire (QLQ) C30, and the EORTC-QLQ-H&N35 scale before treatment, and 6 weeks, 6 months, 12 months and at least 3.5 years after treatment. At the same times, stimulated bilateral parotid saliva flow rates were measured using Lashley cups.

Results: Quality of life scored worse at completion of radiotherapy compared to baseline, but showed improvement in time even after 12 months. The specific xerostomia related items, dry mouth and sticky saliva, were significantly worse at completion of radiotherapy, showed improvement in time and were remarkably better at 5 years than at 12 months post-radiotherapy, but did not reach the baseline. The other functioning scales and specific head-and-neck questions improved in time and were not significantly different from baseline at 5 years post-radiotherapy. Parotid flow rates diminished immediately after radiotherapy, and increased progressively in time to return almost to baseline 5 years after radiotherapy.

Conclusions: Quality of life scores followed the general pattern of salivary flow rates. The specific xerostomia related items, showed an improvement