Materials and Methods: Ten consecutive patients with pancreas tumor treated on EDGE platform (Varian) by SBRT with 10FFF beam and volumetric modulated arc therapy (VMAT) were evaluated. The schedule was: 6 fractions of 7.5Gy prescribed at mean dose to PTV. During the simulation CT, two surface transponders were positioned under the abdominal compression. Calypso was used to monitor the transponders position before the treatment in a free breathing mode and during the patient treatment with the abdominal compressor.

Results: Sixty treatment sessions were analyzed. Abdominal compressor resulted in important reduction of breathing excursion, in particular in anterior posterior (AP) direction. In detail, irregular breathing cycle up to 25 mm in AP was found without abdominal compressor. In all but one patients outlined shifts lower than 2 mm during beam on time using the abdominal compression. One patient resulted in residual motion greater than 10 mm and a new simulation CT with another abdominal compressor was developed after which the motion was reduced to 4 mm in AP. Figure 1 shows an usual free breathing abdominal monitoring with and without abdominal compressor.

Conclusions: Abdominal compressor was shown to reduce diaphragmatic breathing motion with important benefit for patient positioning. Calypso superficial transponders can help in increasing treatment precision confidence and abdominal compression efficacy.

Figure 1: Breathing monitoring with Calypso superficial transponders.

PO-1125
Evaluation of the clinical practice of vaginal dilator therapy for women receiving curative pelvic radiotherapy
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Purpose/Objective: In studies examining the effect of vaginal dilation therapy after pelvic radiotherapy, frequent practice has been associated with lower rates of self reported stenosis. The primary outcome of the current study was dilator use within our clinical practice. Other relevant outcomes were reasons for not using a dilator, whether women felt well-informed about dilator use and if there was preference for one type of dilator. The purpose of the study was to develop and assure the quality of our clinical practice.
**Materials and Methods:** This practice changing study was done in two phases. In phase 1, 17 women prescribed to curative radiotherapy for rectal or anal cancer were asked to complete a simple questionnaire about the vaginal dilator therapy at a routine follow-up after their radiotherapy course. Our findings led to modification of our clinical practice such as written patient information, increased clinician and nursing skills as well as improved patient-nurse communication. In phase 2, 25 new women were enrolled in a repeat study with an updated questionnaire. This assessed the effects of the changes in our clinical practice. The answers were transcribed into an electronic survey system, to ensure correct data analysis.

**Results:** All 43 women completed the questionnaire. In phase 1, we excluded 1/17 that did not receive a dilator. 1/16 did not use the dilator due to having regular intercourse and 6/16 women regularly used a dilator 1-2 times a week. In phase 2, 80% of women felt well informed about reasons and outcomes of using a dilator. We excluded 1/25 women that did not receive a dilator. 5/24 women did not use the dilator due to having regular intercourse and 11/24 regularly used a dilator 1-2 times per week. The proportion of women regularly using a dilator was not statistically different between the two groups. A larger proportion of women 8/11 (73%), used a specific dilator compared to 3/13 (23%) with other types of dilator (p < 0.05).

**Conclusions:** Phase 1 results showed that clinical practice was neither sufficient nor satisfactory. Modifying clinical practice, led to more women regularly using a dilator at the time of check up, but was not statistically significant due to at small study size. Focusing patient information on the importance of regular intercourse, rather than dilator use, appeared to have increased the reported frequency of woman having a regular sex life. Besides regular intercourse, major reasons for lack of dilator use were pain, anxiety/discomfort and misinformation. Current results suggest (i) structured nursing interventions may be required to control pain, (ii) nurses have an essential role in explaining dilator use and addressing feelings of anxiety/discomfort, (iii) further refinement to our patient information procedure is needed because misinformed women only used a dilator for a short period after radiotherapy, (iv) women do appear to show preference for using a particular dilator type.

**PO-1126**

**A pilot study using a computer simulation tool for patient/carer education of radiotherapy**

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**Purpose/Objective:** The improvement of public knowledge of radiotherapy is a global objective; specifically we believe that if patients have a more thorough understanding of the processes and issues then they may be more compliant to preparatory instructions and have reduced anxiety regarding treatment. Information is often more efficiently absorbed when presented in a novel manner, in this study we utilised a computer simulation of a Linear Accelerator.

**Materials and Methods:** PEARL is a commercially available PC based tool that provides a realistic and functional 3D model of a Linear Accelerator and, using a DICOM interface, can visualise treatment plans. We staged ‘drop-in’ sessions in the waiting room of our clinic. Patients, that were under treatment and their carers, were offered demonstrations and explanations of the treatment process by two treatment radiographers (RTTs) using PEARL; no specific treatment site was targeted. Immediately following the discussion, comments were invited and captured using a ‘free text’ questionnaire. Post processing split these responses into common themes and where appropriate, multiple comments were scored per patient.

**Results:** Over three sessions 116 patients viewed the demonstration and 64 patients (or carers) returned feedback; 139 individual comments were identified in the post processing of the free text written responses. In general the recorded comments were all positive and reflected that the use of the computer simulation tool had been useful in communicating the information imparted. After reviewing the responses, 5 common themes emerged from the recorded comments: 1) ‘around patient expectations’ (24 comments recorded, of these 12 recorded it helped reduce anxiety); 2) ‘demonstration was helpful and informative’ (43 comments recorded, of these 6 related to carers); 3) ‘understanding the need for compliance in bladder and bowel preparation’ (6 comments recorded); 4) ‘around understanding the technology’ (25 comments recorded); and 5) ‘recommendation regarding the timing of information delivery’ (41 comments recorded, of these 35 stated they would have preferred to have seen PEARL before their treatment commenced). 48% of the patients were prostate patients and many gave verbal comments as to the usefulness in understanding their bowel and bladder preparation instructions although not all left written feedback.