Conclusions: Long-course chemo-radiotherapy with simultaneous integrated boost is safe in the treatment of rectal cancer patients. Patients presenting more pronounced and/or several toxicity showed a significant trend toward a better TRG. Immunological local reactions could potentially explain these results, and should be further explored.

PO-0706
Individualised margin calculations for different target regions in anal cancer IMRT
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Purpose/Objective: UK IMRT anal cancer treatment uses large fields to uninvolved nodal groups (40Gy) with simultaneous integrated boost to the primary tumour (50.4Gy T1/T2; 53.2Gy T3/T4) and involved nodes (50.4Gy). With a simple bony match online, inguinal nodes are well covered and the margins required are well documented, however the margins for prophylactic inguinal nodes (pIN) and primary tumour are not well established as data from daily imaging are limited; these form the focus of this study.

Materials and Methods: Anal cancer patients treated at a single institution under current UK IMRT guidelines were screened; 11 consecutive inguinal node negative patients were studied. Supine treatment comprised 28 fractions with daily imaging: CBCT fractions 1-5, 10, 15, 20 and 25; orthogonal kV imaging all other fractions.

99 CBCT’s were re-matched automatically to the planning CT. A bony match was performed using a clipbox encompassing the bony pelvis. Re-matches were performed within the same clipbox using the clinician defined tumour (GTVA) as a region of interest (ROI), then repeated with the pIN ROI. Accuracy of auto-matches were assessed visually to ensure clinical relevance. Bony match values were subtracted from the GTVA and pIN measurements to evaluate differences in the optimal treatment position for the tumour or the nodes relative to a simple bony match. Margins were calculated using van Herk’s recipe.

Results: Differences (mm) between GTVA/ bony matches were larger than inguinal/ bony matches in all axes (lat -3.1 to 4.2; -2 to 1.5, vert- 6.9 to 12.7; -3.6 to 2.9, long -13.3 to 17.2; -8.5 to 7.3 in GTV and pIN respectively). This was statistically significant in the long axis (p<0.05) shown in Fig.1. GTVA had consistently larger systematic and random errors than pIN, reflected in the margin calculations (mm): GTVA lat 2.8, long 9.8, vert 5.8; pIN lat 1.5, long 3.1, vert 3.1.

Conclusions: With a simple bony match, the margin around pIN can be reduced to 1.5mm laterally and 3.1mm in all other directions potentially reducing toxicity to the groin, genitalia and bladder.

The GTVA to PTV margin incorporates microscopic disease, the motion of the soft tissues of the anus which can be affected by tumour size, location, bowel filling and BMI; and the set up error. The margin reported in this study covers set up error and soft tissue motion of the anus. An individualised margin incorporating these factors can be calculated and applied during the treatment course with the aim of reducing toxicity in adjacent organs such as vagina, bladder and penile bulb.

Further investigation is warranted to demonstrate reduced toxicities with these strategies.

PO-0707
Multidisciplinary clinic models deliver higher value care for patients with pancreatic cancer
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Purpose/Objective: Multidisciplinary clinics (MDCs) offer patients an initial evaluation by all oncologic specialists, radiologists, pathologists, and others. The costs and overall value (defined as quality divided by costs) of care in MDCs are not well-described. For patients with pancreatic cancer, we compared direct care costs, patient retention rates, patient phone calls with symptoms, patient ED visits with symptoms, and survival outcomes for patients treated in a pancreatic MDC to patients evaluated outside of the MDC.

Materials and Methods: Two cohorts of patients with pancreatic cancer seen at our institution were analyzed and