Purpose/Objective: There are a few reports of the radiotherapy for synchronous carcinomas in the head and neck (H&N) and esophagus. Purpose of this retrospective study is to analyze the results of definitive radiotherapy and find the possible prognostic factors.

Materials and Methods: We reviewed the records of 48 patients with synchronous carcinoma in H&N and esophagus who were treated by definitive radiotherapy between 2000 and 2012 in our institution. The patients with distant metastasis were excluded in this study. Regarding head and neck carcinoma, the primary site was hypopharynx in 35 patients, larynx in 7, oropharynx in 3 and multiple primary sites in 3. Lymph node involvement was seen in 10 patients. Eighteen patients were classified to Stage I, 16 to Stage II, 6 to Stage III and 8 to Stage IV. Radiation dose in H&N ranged from 34Gy/17fr to 70Gy/35fr with mean dose of 60Gy/30fr. Concerning esophageal carcinoma, single site in esophagus was involved in 23 patients and multiple sites in 25 patients. Lymph node metastasis was seen in 21 patients. Twenty-four patients were classified to Stage I, 9 to Stage II, 14 to Stage III and 1 to Stage IV. Radiation dose in esophagus ranged from 34Gy/17fr to 66Gy/33fr with mean dose of 60Gy/30fr. Concurrent 5-FU and cisplatin was administered to 41 patients, and the remaining 7 patients were treated by radiation alone.

Results: The 3-year overall, and cause-specific survival rates were 38.5% and 52.7% respectively. Advanced esophageal carcinoma stage (stage III or IV) had worse 3-year cause-specific survival rate than stage I or II esophageal carcinoma (63.8% vs. 24.4%, p=0.02).

Concerning adverse events, 22 patients (45.8%) needed admission management due to severe acute toxicity. Data was collected for the acute phase, start of treatment to 6 weeks after completion of radiotherapy and late phase, from 6 weeks following completion of treatment to 6 months following completion of treatment. Quality of life questionnaires were completed at baseline, at end of radiotherapy, 6 weeks following completion of treatment and 6 months following completion of treatment. All patients have been followed up for greater than 24 months for survival and local recurrence rates. Biopsies have been retrospectively tested for p16 positivity by immunohistochemistry.

Results: Patients receiving Cisplatin required more intense management during the treatment and acute phase they were more likely to require overnight admission and required more laboratory tests. When compared to patients receiving Cetuximab, patients treated with Cisplatin also had more unplanned visits to hospital for management of the side effects of treatment. There was no significant difference between the two arms of the study for time spent with the head and neck CNS, Dietician or speech and language therapist. There were no differences in quality of life parameters between the 2 arms of the study although patients receiving Cetuximab were significantly less likely to be using a feeding tube at 6 Months, p< 0.04. While the study was not powered to investigate differences in survival or local recurrence rates there was a statistically significant increase in local recurrence in patients treated by Cetuximab in this study. log rank p=0.014

Conclusions: While the overall costs of drug treatment plus emergency admission are higher for Cetuximab when compared to Cisplatin terms patients undergoing Cisplatin and Radiotherapy require significantly more non routine intervention and care than patients receiving Cetuximab and Radiotherapy in this randomised study and this would be taken in to account when planned further trials. A study comparing cisplatin and Cetuximab to investigate quality of life and late functional effects of treatment could be viable within the NHS. Any future study should also be powered to investigate potential differences in overall survival and local recurrence rates.

Materials and Methods: Between February 2008 and January 2011, 24 consecutive patients, 15 with oropharyngeal and 9 with oral squamous cell carcinoma were treated with exclusive radiotherapy or concomitant chemoradiotherapy. Simultaneous integrated boost (SIB) in 30 fractions scheme was prescribed to all patients, using Helical Tomotherapy. Patients treated with exclusive radiotherapy received a dose of 67.5 Gy in 2.25 Gy daily fractions for tumor and 63 Gy in 2.1