Results. Treatment cost for conventional fractionation 3DCRT was 6.518,81, whereas the hypofractionated regimen using the same technology cost was 4.737,76. PBI costs were 3.078,60, 4.483,49, 4.075,36, and 7.418,46, for 3DCRT, LDR brachytherapy, HDR brachytherapy, and IORT, respectively.

Conclusions. Besides personal, emotional and working considerations, PBI treatment administration appears to be the more economic option, being the 3DCRT the cheapest technique. Multidisciplinary teams offering breast conservation to women with early-stage breast cancer should consider accelerated radiation regimens offering comparable therapeutic benefit with use of fewer Public Health Care Euros.

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Evaluating and improving a local system event notification and registration in radiotherapy
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Purpose. Describe the results of a local monitoring and reporting system of incidents, based on WHO Technical Manual “Radiotherapy Risk Profile” (2008) since 2009. System is voluntary, anonymous, confidential, non-punitive open to all professionals locally involved in radiotherapy process in our hospital. We analysed the system’s effectiveness and evaluated incidents detected during three years of operation.

Method. Access to electronic form was installed on several computers in Radiotherapy service since July 2009. It made known through two training sessions aimed at all staff before beginning to record incidents. The form reflects the most important events as the risk profile of the WHO, classified them according to the stage of process in which occur. We analysed the records, and categorised events by cause and time frequency. Recurrence of events was analyzed and was proposed barriers to prevent failure detected by a multidisciplinary team.

Results. Of 3528 patients treated, there were a total of 184 incidents were reported through the computerized reporting system from August 2009 to January 2013. We observed the increased detection of incidents appear in preparing the patient for treatment. To prevent the most important event detected, some barriers have been developed, like checklists for each procedure involved and some improvement are implementing as a new system of patient identification.

Conclusion. Electronic form allows more detailed analysis, turning information about how, when and by whom the event was detected and reflect the event throughout any stages of radiotherapy process. The method highlights the importance of educating staff so allows us to determine and organize risk reducing actions as strategy to promote clinical safety culture in organization.

The reporting system has been improved in the managing reports, analyzing and feedback established. Monitoring and evaluation of improvements has been implemented as a tool to improve patient safety and system’s effectiveness.

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Evolution of workloads in a Radiation Oncology Department
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Introduction. The workload that represents a particular pathology in a Radiation Oncology Department defines the activity in a given environment and it is the basis for resource planning.

Objectives. To know the development over time and the trend of workloads by pathologies in a Radiation Oncology Department at the provincial level. To compare the results with those published by other centers.

Materials and methods. A retrospective analysis of all procedures (1998–2011) was performed. Workload is defined as the proportion of patients treated for each condition in relation to the total of irradiated patients. Reirradiation rate has been calculated for a wide period (1987–2008). It has also been quantified the percentage of patients who was dismissed after treatment assessment.

Results. The 73.2% of the workload focuses on six diseases: breast, prostate, lung, head and neck, rectal and gynecological pathology, representing the average workloads 23.2%, 12.7%, 11.4%, 6.6%, 10.1% and 9.2% respectively. These ratios are variable in time and are expressed in Table 1, showing the evolution in Fig. 1 (Not in the abstract). Table 2 describes the proportion of relative workloads in Cordoba in different periods (Not in the abstract). This analysis allows us to see the trend in our environment and compare it with the south of the Netherlands. Reirradiation rate has accounted for 5.75%, while 14.8% of patients (2007–2011) have not been irradiated after clinical assessment. Similar analysis have been published by other series (10% in the Netherlands and 8.4% in the Sweden).

Conclusions. Radiation activity falls mainly on 6 conditions: breast cancer, urological (prostate), lung, rectum, head and neck and gynecological tumors. In Cordoba, a high workload tendency to stabilize is seen in rectal cancer; low although growing trend in lung and breast cancer; slightly above the Dutch in gynecological tumors; low in prostate cancer (1998–2002), although with significant growth in the following periods.

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