

A cost effective way of reducing outpatient clinic waiting times: How we did it

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Citation

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Abstract

Background: Patient clinic waiting times are an important indicator of quality of services offered by hospitals. Long waiting times are a major source of patient dissatisfaction and adversely affect patient compliance with treatment regimes and clinical outcomes. Cancer patients require longer consultation times, which have a build up effect of increasing waiting times of the other patients needing to be seen. **Methods:** We performed an audit of all patients who presented to the Maxillofacial/Head and Neck clinics in May 2008 at the Royal Darwin Hospital. Patients who arrived late for their scheduled appointment were excluded. Recommendations from the audit were implemented and a re audit done after six months. Based on the analyses of the initial results, our service was re organised into separate cancer and non-cancer clinics. A follow up audit was done six months later in November 2008. Patients were pre selected randomly from the out patient clinic list of both cancer and non-cancer clinics. Patients who arrived late for their scheduled appointment were excluded. Data was summarised with graphs and tables and statistical analyses done using XLSTAT version 2008.6.8 Copyright Addinsoft 1995-2008 software. **Results:** 75 patients were analysed for the audit and 45 for the re -audit. About a third of patients from both studies were cancer patients; 37.8% of the audit and 34% in the re audit. Mean clinic waiting time in the audit was 42.89minutes. There was a statistically significant difference in consultation times ($p < .001$) at 95% Confidence interval (CI) with initial cancer visits spending the most time (70.8 minutes) and follow up non cancer patients spending the least time (16.2minutes). In the re- audit, the mean waiting time was reduced to 12 minutes and there was still a statistically significant difference in consultation times ($p < .001$) at 95% CI with initial cancer visits spending the most time (63.7 minutes) and follow up non cancer patients spending the least time (11.72minutes). In both the audit and re audit, there was no statistically significant difference in the time spent on procedures. **Conclusion:** Separating outpatients into cancer clinics and non-cancer clinics is a cost effective way of reducing clock waiting times in outpatient clinics and thus improving the quality of care to our patients.

INTRODUCTION

Patient clinic waiting times are an important indicator of quality of services offered by hospitals.^{1,2} Lengthy consultation times are influenced by patient diagnosis and has a backlog effect on clinic waiting times. Sabina et al, collating data on 5907 cancer patients from 23 different hospitals identified waiting time between calling and the time of scheduled appointment as one of the top ten priorities for service improvement.²

The aim of this study was to find cost effective ways of decreasing outpatient waiting times and thus improving the quality of service to our patients. To achieve this, we audited the time spent during consultation, the waiting times in the clinic before being seen, and also the effect of the patient's diagnosis and procedures performed on the duration of consultation. We then implemented our recommendations

and performed a re audit.

METHODOLOGY

For the audit, all patients who presented to the thrice-a-week clinics in May 2008 were included in the study. Patients who were late for their appointment were excluded from the study. A questionnaire was filled by the consulting doctor noting the appointment time and the time patient was seen. The performance of any procedure and the duration of the procedure were also recorded. For the re -audit, 45 patients were randomly preselected from the outpatients list by the toss of a coin, from both cancer and non-cancer clinics. Heads were selected and tails were rejected. The consulting doctor filled out the same questionnaire used in the audit. Data was summarised using graphs and tables. Statistical analyses were performed using XLSTAT version 2008.6.8 Copyright Addinsoft 1995-2008 software.

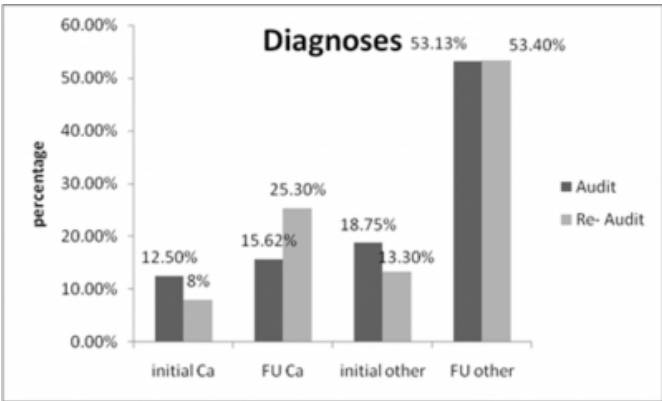
RESULTS

PATIENT GROUPS PRESENTING TO CLINIC

Patients were stratified into four main groups; initial cancer (initial Ca), follow up cancer (FU Ca), initial other and follow up other (FU other). Of the 75 patients analysed in the audit, 12.5% were initial cancer consultations, and 15.62% were follow up cancer consultations. Over half (53.13%) of these patients were follow up non-cancer patients. In the re audit, 8% of patients were initial head and neck consultations, 25.3% were follow up cancer patients, 13.3% were initial other and 53.4% were non cancer follow up patients. See Figure. 1(Diagnoses)

Figure 1

Figure 1



WAITING TIMES BEFORE CONSULTATION

In the initial audit, patients waited from between 10minutes to 2hours. The mean waiting time was 42.89 minutes. In the re audit, the mean waiting time was reduced to 12 minutes a difference of over 30 minutes. This difference was a statistically significant at 95% CI with $p < 0.001$ (Table 1). There was no statistically significant difference between the time spent on procedures in the audit and re audit ($p = 0.58$). See table 1.

The procedures performed were removal of stitches (80%), biopsies (5%), fibreoptic nasal endoscopy (10%) and removal of PEG feeding tube (5%).

Figure 2

Table 1

	Mean Waiting time	Mean Procedure time
Audit	42.89min($\sigma=29.5$ min)	2.7min($\sigma=0.68$ min)
Re Audit	12min($\sigma=13.2$ min)	2.06min($\sigma=0.84$ min)

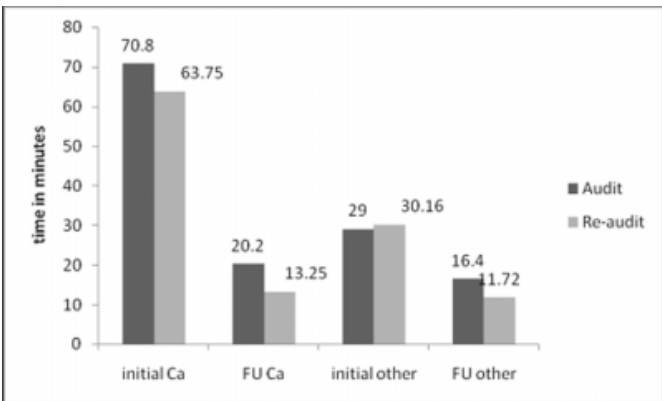
Mean waiting time, $p < 0.001$ at 95% CI. Mean procedure time, $p = 0.58$ at 95% CI.

TIME SPENT DURING CONSULTATION

Initial cancer patients spent the longest time in consultation (mean of 70.8minutes in the audit, and 63.75 minutes in the re-audit). Other initial consultations took 29 minutes in the audit and 30.16 minutes in the reaudit. Follow up cancer patients took 20.2 minutes in the audit and 13.25 minutes in the re audit. Other follow up patients spent the least time of 16 minutes in the audit and 11.72 minutes in the reaudit. See figure 2.

Figure 3

Figure 2



DISCUSSION

The definition of clinic waiting times in this study is the clock time from scheduled appointment time to consultation time on the day of an outpatient visit as defined by the UK audit office .³ Long Outpatient clinic waiting times usually result in some amount of patient dissatisfaction .⁴ A study by Huang on surgical outpatients showed that patients who arrived to clinics on time for their appointments considered waiting for up to 37 minutes reasonable.⁵ Cartwright and Windsor, in their work on waiting times in the United Kingdom (UK) demonstrated the rapid decline in patient tolerance when they waited for over 30 minutes.⁶ We used the 30 minute maximum waiting time adopted by the Patient Charter in the UK as our gold standard. No such limit to outpatient waiting times was found in the patient Charter of our hospital and other Australian public hospitals. Patient waiting times in clinics have been used as indicators of the quality of services offered .¹

Our initial audit showed our mean waiting time was 42.89 minutes with a wide range of 10 minutes to 2 hours, which exceeded the `30 minute waiting time` incorporated into the UK patient Charter as the National standard. Cancer patients had a significantly longer consultation time especially during initial visits, compared to other patient diagnoses groups.

Time spent on procedures did not significantly impact on waiting times. It must however be noted that the time spent during consultation did not include time spent with physiotherapist, dietician and cancer support nurse. Long consultation times are important in newly diagnosed cancer patients as they search for answers to the psychological, emotional, social and financial ramifications of their diagnoses.

Even though actual patient satisfaction was not measured, the link between patient dissatisfaction and long waiting times have been well established.⁴ These lengthy consultations cause a build up of patients waiting to be seen, increasing in the waiting times of the other patients, fuelling dissatisfaction and leading to a perception of poor quality service. The recommendation arising from the audit was to use one clinic day for cancer patients and the others for non-cancer patients. This would allow longer planned appointments during the cancer clinics. The re-audit showed a significant decrease of 30 minutes in the mean waiting time, and the cancer and non-cancer clinic model for

Maxillofacial/Head and Neck surgery was permanently adopted.

CONCLUSION

Serving rural and remote Australia, the stratification of our outpatients into cancer and non-cancer clinics proved to be a cost effective way of improving the quality of care we delivered through the reduction of clinic waiting times.

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