

Report for 2011 on the Symptomatic Breast Disease Key Performance Indicators

Foreword

The centralisation of symptomatic breast disease services from 35 acute hospitals into eight designated cancer centres was completed in December 2009. Since then, the symptomatic breast disease service in Ireland has developed significantly. The National Cancer Control Programme has been working in partnership with clinical, administrative and managerial staff in the cancer centres to consolidate the service into a standardised national programme with comprehensive standards and targets.

The symptomatic breast disease services are led by a lead clinician in each designated cancer centre and supported by a multidisciplinary team of cancer specialists and data managers. This group now operates as a cohesive national clinical network for the purpose of clinical audit, sharing of good practice and problem solving. Through this national network, best practice models are identified and shared to ensure standardisation and service improvement nationally.

This is the second annual report of the Key Performance Indicators (KPIs) for the national symptomatic breast disease service. The KPIs are designed to assist patients, staff and the NCCP in assuring themselves that all eight of the designated centres are adhering to the required standards of practice. The KPIs are presented and discussed at the annual NCCP multidisciplinary breast forum for audit, quality and risk.

In 2011, improvements were recorded across all KPIs. Despite many challenges and an overall increase in numbers of patients attending the service, cancer centres continue to provide a high quality service. Additional resources were invested in Radiation Oncology and Medical Oncology in 2011 and these measures are beginning to show distinct improvements in these key areas of patient care.

I would like to acknowledge the dedication of the multidisciplinary teams in the cancer centres, which has ensured continuity and quality of care for these patients.

A handwritten signature in black ink, reading "Susan O'Reilly". The signature is fluid and cursive, with a long, sweeping underline that extends to the right.

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Introduction

This is the second report from the National Cancer Control Programme (NCCP) on the Key Performance Indicators for symptomatic breast disease (SBD) services in public hospitals in Ireland.

Prior to the establishment of the National Cancer Control Programme (NCCP) in 2007, symptomatic breast disease (SBD) services were delivered in most of Ireland's acute hospitals. Such a dispersal of services meant that few hospitals were in line with international best practice in terms of the volume of breast cancer cases they diagnosed and managed. As part of its remit to create a framework for cancer control in Ireland, improving access and quality of symptomatic breast disease services were identified as key priorities for the NCCP.

In 2007, centralisation of symptomatic breast disease services commenced. By January 1st 2010, symptomatic breast disease clinics had been centralised in eight cancer centres with a satellite centre in Letterkenny, Co Donegal.¹ However, centralisation was only one component of the drive towards high quality services.

Following the designation of the eight cancer centres, the Health Information & Quality Authority (HIQA) undertook a national quality review of symptomatic breast disease services over a two and a half year period [1]. Findings from this quality review shaped the governance system and monitoring programme that was put in place by the NCCP in each of its designated cancer centres. Each SBD service in the eight designated cancer centres nominated a Lead Clinician. These individuals have a key role in assuring the quality of SBD services in the centre, within the context of the overall clinical governance framework.

Good information is essential to good management of health services. Performance measurement is one mechanism that enables Lead Clinicians and the NCCP to assess SBD services, to make comparisons between centres and identify areas for improvement, as well as sharing good practice [2]. Key performance indicators (KPIs) are an important component of the NCCP monitoring programme. In isolation, KPIs cannot prove that a service is high quality, but properly interpreted, they serve as useful pointers.

All eight designated cancer centres (including the satellite centre at Letterkenny General Hospital) now routinely submit monthly, quarterly and annual data in relation to a suite of indicators.

¹ Beaumont, Mater, St. James', St. Vincent's University Hospital, Waterford Regional, Cork University, Limerick Regional, Galway University & its satellite Letterkenny.

Highlights of 2011

Overall, significant progress has been made in 2011. Across all KPIs, improvements have been recorded in achieving national targets. While some difficulties remain in individual centres, most hospitals have made significant improvements and have either met the targets or progressed considerably towards meeting them.

- 37,955 new patients attended the symptomatic breast disease (SBD) services.
- 2,145 patients were newly diagnosed with breast cancer, a 7% increase from 2010; this amounts to 67% of breast cancers diagnosed annually in Ireland, the remainder being identified either through the national breast screening programme (BreastCheck) or in the private sector.
- A further 302 patients were diagnosed with recurrent cancer.
- SBD services saw 13,739 attendances of patients who were triaged as urgent in 2011 – a 9% increase from 2010 attendances. Over 95% of these patients were seen within two weeks of receipt of referral. All centres achieved the target for seeing urgent patients within a two week timeframe.
- SBD services saw 24,196 attendances of patients who were triaged as routine – a 4% decrease from 2010 attendances. Over 95% of these patients were seen within 12 weeks of receipt of referral.
- SBD services continue to provide timely access to mammography and ultrasound examination of the breast: the majority of patients deemed urgent at first visit have imaging on the day of appointment; the majority of routine patients have imaging within 12 weeks of initial assessment.
- Most patients have their cancer diagnosed without an operation. In 2011, all centres achieved the target concerning pre-operative diagnostic work up - this represents a significant improvement from 2010, where 5 centres met the target. All centres achieved the target for a non-operative diagnosis.
- Virtually all patients have their management discussed at a multidisciplinary team meeting, all within 10 working days. All centres achieved the target for multidisciplinary discussion and seven out of eight centres achieved the target of having that discussion within 10 working days of the clinic attendance.
- Where surgery was the first treatment, 89% of patients had their surgery within 4 weeks of the date that the management of their disease was discussed at a multidisciplinary team meeting.
- There was significant improvement in access to radiation oncology treatment with the opening of new units in St. James and Beaumont Hospitals in 2011. Though only two centres achieved the targets, most hospitals demonstrated that their patients experienced considerably faster access in 2011. Delays were in part attributable to patient factors such as complications post surgery or chemotherapy.
- There was also significant improvement in access to chemotherapy in a timely manner with all eight cancer centres improving their performance. Four centres achieved the target in 2011 compared to one cancer centre in 2010.
- All centres achieved the targets concerning the accurate localisation of occult tumours.
- All centres achieved the target concerning axillary staging, where all patients with a primary operable breast cancer should have an ultrasound of the axillary nodes.

- International targets suggest that patients who undergo breast conserving surgery should have no more than three therapeutic operations. All centres achieved this in 2011.
- All pathology reports were completed in accordance with the quality standards. Two centres were unable to provide reports in a timely fashion as defined by the performance indicator target. The difficulty in recruiting suitably qualified pathologists is a challenge for cancer services nationally.

Key Performance Indicators

Key Performance Indicators are an important component of the NCCP’s monitoring programme, which has been put in place to enable service users, service providers and the NCCP to make comparisons between centres, identify good practice and areas for improvement. The KPIs reported here were selected to best represent how the work carried out in the individual centres adheres to the “*National Quality Assurance Standards for Symptomatic Breast Disease Services*” as published by the Health and Information Quality Authority (HIQA). This is the second report from the National Cancer Control Programme on the Key Performance Indicators for the symptomatic breast disease (SBD) clinics in the eight designated cancer centres.

Activity in 2011

In 2011, 37,955 new patients attended the symptomatic breast disease clinics in the eight designated cancer centres (Table 1). Thirty six percent of these attendances were triaged as being urgent. A total of 2,145 patients were newly diagnosed with primary breast cancer and a further 302 patients presented with recurrent cancer.

Table 1. All attendances to symptomatic breast disease clinics and number of cancers subsequently diagnosed by cancer centre

2011	Beaumont	Mater	St James’s	SVUH	Waterford	Cork	Limerick	Galway /Letterkenny	Total
Total number of attendances triaged as urgent	1696	2011	1224	1887	1601	1972	1445	1923	13759
Total number of attendances triaged as non-urgent	2417	3439	3445	2951	2290	3257	1388	5009	24196
Total new attendances	4113	5450^a	4669^b	4838	3891	5229	2833	6932	37955
Total return attendances	4859	8060	2518	5431	3743	6828	3667	7001	42107
All attendances	8972	13510	7187	10269	7634	12057	6500	13933	80062
Number of patients newly diagnosed with cancer and discussed at MDM	236	226	282	296	195	326	182	402	2145
Recurrent cancers	34	47	20	14	38	68	16	65	302
Total cancers	270	273	302	310	233	394	198	467	2447

^aExcludes an additional 174 attendances as these patients were seen twice in the previous 12 months with same side symptoms or had previous breast cancer

^bSt James's Hospital total excludes new family history referrals

Standard 1 – Access

The first standard strives to ensure timely access to specialist opinion and states that “patients suspected of having breast cancer are seen within an appropriate timeframe” [3].

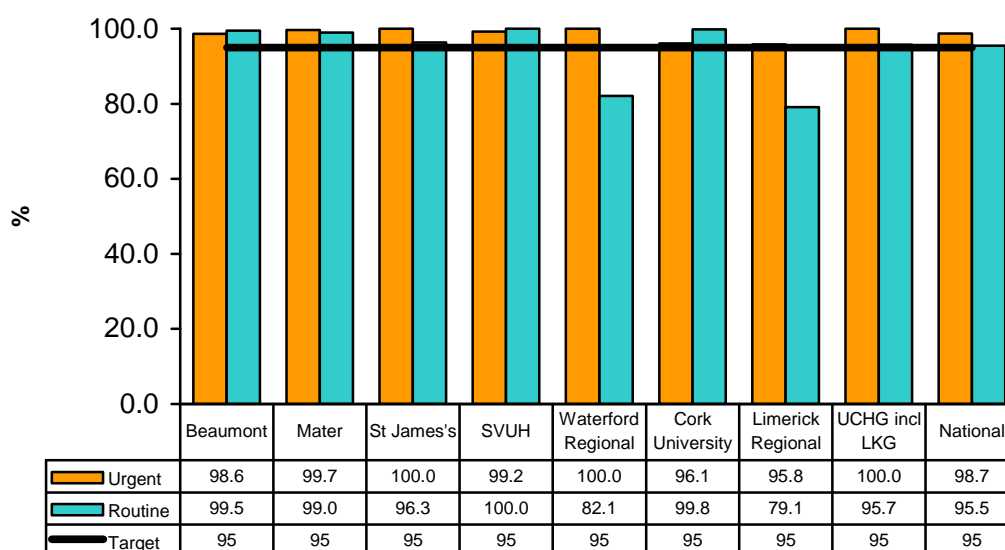
Ensuring timely access to specialist opinion is important because delays can be associated with marked patient anxiety, although delays in onset of treatment of up to 3 months has not been shown to affect survival [4-6].

Within this access standard, there are four KPIs. The first two KPIs focus on access to specialist opinion. The first KPI requires that over 95% of patients who are triaged as urgent by the designated cancer centre, following receipt of the GP referral, are seen or offered an appointment to be seen within 10 working days of receipt of the referral.

The second KPI requires that over 95% of patients triaged as non-urgent by the designated cancer centre, following receipt of the GP referral, are seen or offered an appointment to be seen within 12 weeks of receipt of the referral.

In 2011, over 95% patients triaged as urgent were seen within two weeks of receipt of referral (Figure 1). For non urgent patients – those considered routine - over 95% of patients were seen within the 12 week timeframe.

Figure 1. Access to specialist opinion by cancer centre

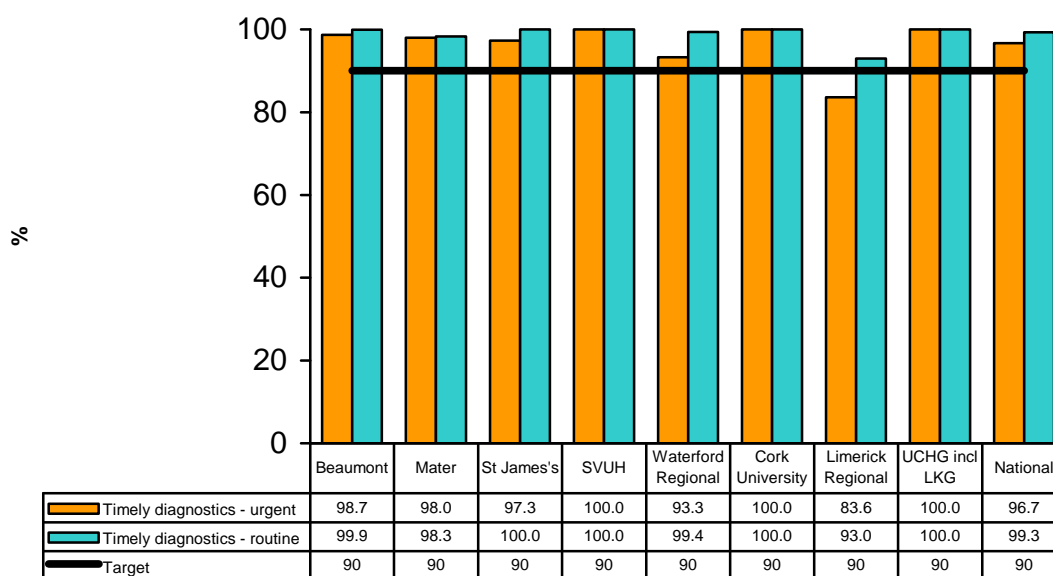


Looking at individual designated cancer centres in 2011, all eight achieved the target for seeing urgent patients within a two week timeframe and six out of eight designated cancer centres achieved the target for seeing routine patients within a 12 week timeframe. Compared to 2010, when six out of eight centres achieved the target, this is an improvement in access for patients triaged as urgent in 2011.

Limerick Regional Hospital and Waterford Regional Hospital did not meet their target for routine attendances in 2011. Waterford Hospital recruited a consultant surgeon in 2011 and this appointment helped to bring up capacity which resulted in their meeting the target for routine patient access by August 2011 and continued to meet the target to year end. Limerick Hospital began to have difficulty meeting the target mid year in 2011. Additional clinics were arranged to deal with the waiting list at year end.

An appointment for a specialist opinion is just the first step. In a high quality service, diagnostic processes must also be carried out in a timely manner. To address this, the third KPI regarding access requires that over 90% of new patients attending the cancer centre, who are considered urgent following the consultant surgeon’s assessment, will have a mammogram or ultrasound done on the first visit. The fourth and final KPI regarding the access standard requires that over 90% of new patients will have any breast imaging requests - mammogram or ultrasound - within 12 weeks of the consultant surgeon’s assessment at the clinic.

Figure 2 Timely access to diagnostic imaging by cancer centre



In 2011, all centres achieved their target with respect to imaging within 12 weeks of the first specialist assessment at the clinic. For urgent imaging, while the centres were largely successful in achieving this target (Figure 2), one centre, Limerick Regional Hospital achieved 83.6% in relation to urgent cases. Of those patients in Limerick Regional Hospital who did not have a same day assessment, over 90% had their scans undertaken within 14 days of the initial appointment.

Standard 2 – Imaging

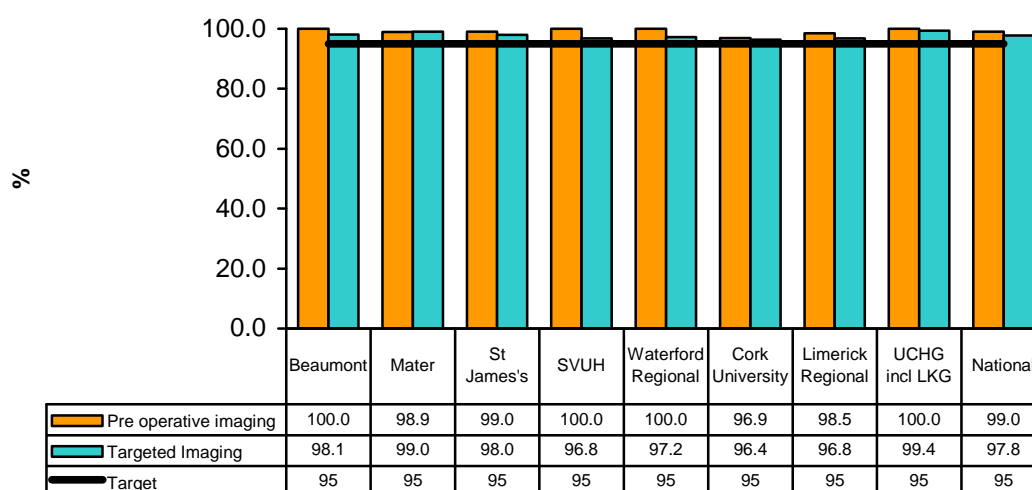
The second standard outlines that “patients should have access to appropriate imaging carried out by experienced professionals” [3].

To maximise accuracy of diagnosis, appropriate imaging needs to be undertaken and specialist radiology staff are essential for breast cancer diagnosis [4-6]. While timeliness of procedures is a significant consideration, from a quality perspective, it is equally important that patients have the *right* procedures carried out by the *right* person.

Four KPIs focus on this standard. A proper diagnostic work up prior to surgery is key and the first KPI requires that more than 95% of patients with primary operable breast cancer will have both a mammogram and an ultrasound examination before their operation.

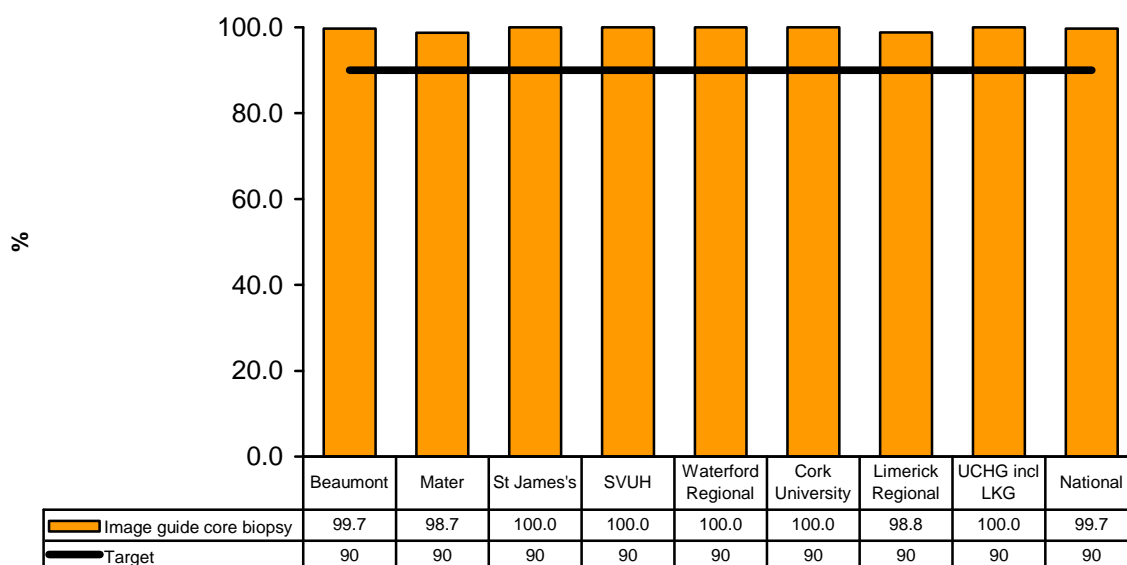
The second KPI requires that more than 95% of patients over the age of 35 with a clinically palpable focal abnormality should have both a mammogram and a targeted ultrasound examination.

Figure 3. Appropriate diagnostic imaging by cancer centre



In 2011, all centres achieved the target concerning pre-operative diagnostic work-up (Figure 3) and all centres achieved the target of over 95% for targeted imaging. This represents an improvement from 2010, where only five centres met the target for targeted imaging.

Figure 4. Image guided core biopsies by cancer centre



The target was achieved by all centres for this third KPI in 2011 (Figure 4), a finding that was replicated in 2010.

The fourth KPI concerned with imaging requires that only high volume consultant radiologists are involved in the assessment of symptomatic breast disease. Towards this, the HIQA standard states that each consultant should report on a minimum of 1,000 mammograms per year. In 2011, 30/33 consultant radiologists reported more than 1,000 mammograms. This total included work carried out in a public hospital only. Some consultants have joint appointments in private hospitals.

Standard 3 – Diagnosis

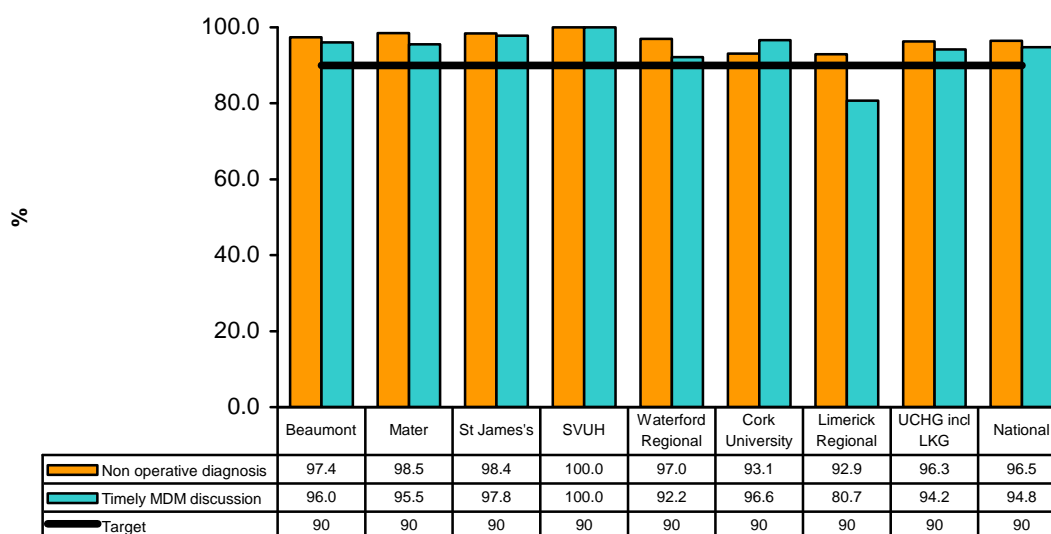
The third standard states that “all efforts are made to diagnose a patient non-operatively in a timely fashion” [3].

A non-operative diagnosis reduces the number of invasive procedures that the patient must undergo during treatment, so it is important that every effort is made to make the diagnosis without an operative procedure. This is not possible in all cases. Time from referral to diagnosis should be as short as possible to minimise anxiety to the patient [4-6].

There are two KPIs for this standard. The first requires that more than 90% of patients with primary breast cancer will be diagnosed without an operative procedure (open biopsy).

The second KPI requires that more than 90% of patients deemed urgent by the cancer centre and subsequently diagnosed with primary breast cancer are discussed at the multidisciplinary team meeting (MDM) within 10 working days of their first attendance at the clinic.

Figure 5. Non-operative diagnosis and timely discussion at MDM by cancer centre



All centres achieved the target regarding non-operative diagnosis in 2011 (Figure 5), replicating 2010 findings.

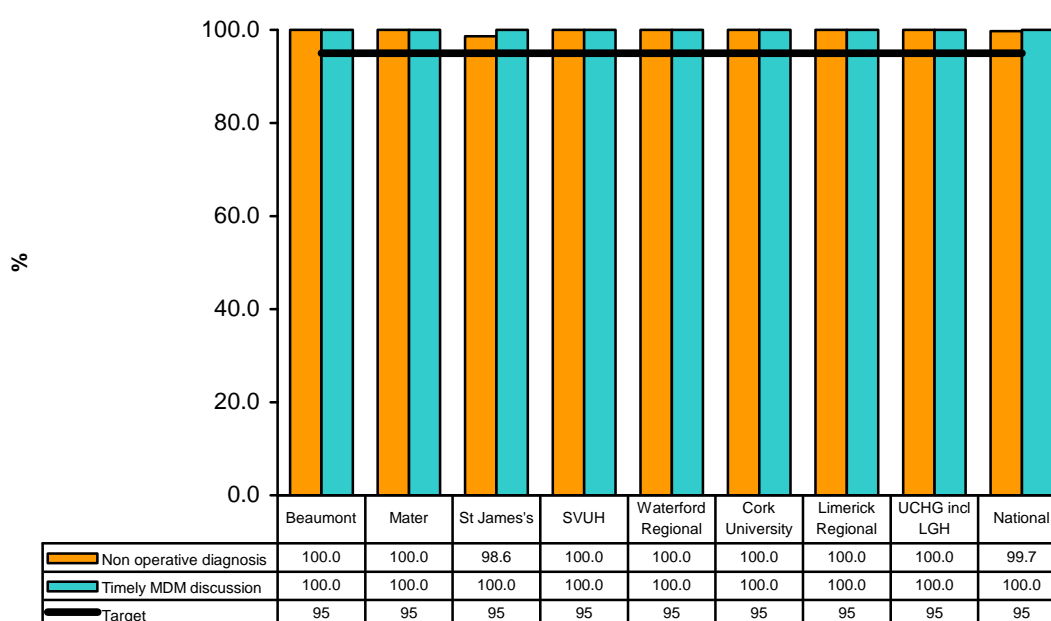
Seven centres achieved the target for the KPI which focusses on timely MDM discussion in 2011, an improvement from 2010 where six centres achieved the target. Limerick Regional Hospital continues to experience challenges meeting this target due to difficulties in recruiting a consultant pathologist.

Standard 4 – Multidisciplinary Working

The fourth standard ensures multidisciplinary team working, specifying that “prior to performing any definitive treatment, the patient’s clinical, radiological and histological findings are discussed by the multidisciplinary team” [3]. This allows all relevant specialist staff to input into treatment planning [4-6].

Two KPIs measure this standard. The first KPI requires that over 95% of all patients who have breast investigations that generate a histopathology report are discussed at a multidisciplinary meeting. The second KPI requires that over 95% of all patients with a diagnosis of breast cancer are discussed at a multidisciplinary meeting.

Figure 6. Multidisciplinary discussion at MDM by cancer centre



All centres achieved the target in both KPIs in 2011 (Figure 6), replicating findings in 2010.

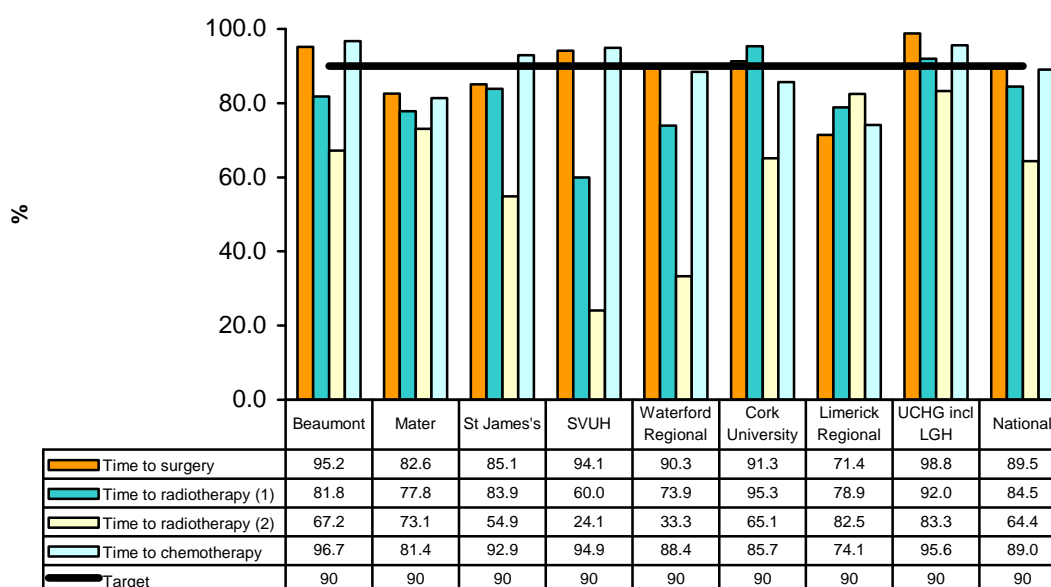
Standard 5 – Time to Treatment

The fifth standard specifies that “patients are scheduled to receive their treatments within a safe timeframe” [3].

Recent evidence shows that certain time intervals are safe between treatments, allowing patients to prepare for and recover from treatments without impacting on survival. Scheduling treatments in a timely manner avoids the uncertainty and anxiety to patients associated with waiting for treatment [4-16].

There are four KPIs for this standard. The first KPI requires that if surgery is the first treatment, over 90% of patients will have their surgery carried out within 4 weeks of the date of the multidisciplinary meeting when the cancer was first discussed.

Figure 7. Timely access to treatment by cancer centre



Looking at timely access to surgery, 5 of the designated cancer centres achieved this target in 2011 (Figure 7), a similar finding to 2010. St James’s Hospital achieved 85%. The centre stated that a contributory factor that prevented them from reaching the target was that a number of patients were deemed to be medically unfit for surgery within the specified timeframe, as well as some capacity issues.

Timely access in the Mater Hospital has improved from 77% in 2010 to almost 83% in 2011. This hospital also cites medical conditions requiring additional treatments and capacity issues as explanations for not achieving the targets.

Limerick Regional Hospital achieved 71%, which was a deterioration compared to the achievement of 88% in 2010. Medical reasons were cited as being the main explanation.

The second and third KPIs measure access to radiation therapy. The second KPI requires that over 90% of patients who are scheduled to receive radiation therapy

following surgery and do not require chemotherapy, begin radiation therapy within 12 weeks of the final surgical procedure. The third KPI focuses on patients who need both chemotherapy and radiation therapy post-surgery. For these, the KPI requires that over 80% of patients will begin radiation therapy within 4 weeks of the last chemotherapy treatment.

Regarding access to radiotherapy following surgery, two hospitals (Cork University Hospital and Galway University Hospital incorporating Letterkenny) have achieved the target in 2011 (an improvement for both hospitals from 2010). Of the remaining six centres, all but Waterford and Limerick Regional Hospitals have improved considerably since 2010. Medical reasons have been cited as the primary reason for patient delays.

Following review of data in 2010, it emerged following detailed examination that many of the reasons for delayed access to radiation oncology following chemotherapy related to patient clinical factors and were not within the control of the service. There was consensus that the 90% target was not realistic and, the target for access to radiotherapy following chemotherapy was reduced to 80%. Despite the reduction in the measure, only two centres achieved the target in 2011. Most hospitals improved in 2011, with a higher percentage of patients accessing treatment within the optimal time period. St James's and Waterford Regional Hospitals had fewer patients treated in the target time period than in 2010. Waterford Hospital cited medical and capacity issues as being the main reasons why the target was not achieved.

The fourth KPI concerned with this standard requires that over 90% of patients who require chemotherapy post surgery will begin treatment within 8 weeks of the final surgical procedure. Only University Hospital Galway incorporating Letterkenny satellite achieved the target in 2010. In 2011, four hospitals have achieved the target, namely Beaumont, St. James's, St. Vincent's and Galway University Hospital incorporating Letterkenny. The Mater and Waterford Regional Hospital have not met the target but have improved considerably since 2010. Medical reasons are cited as the primary cause for patient delay. Cork University Hospital has had a slight improvement from 84% in 2010 to 86% in 2011. Limerick Regional Hospital achieved 74% in 2011 compared to 88% in 2010. Medical reasons are cited as the primary cause for patient delay, followed by delay in referral for chemotherapy following surgery.

Standard 6 – Accurate Localisation

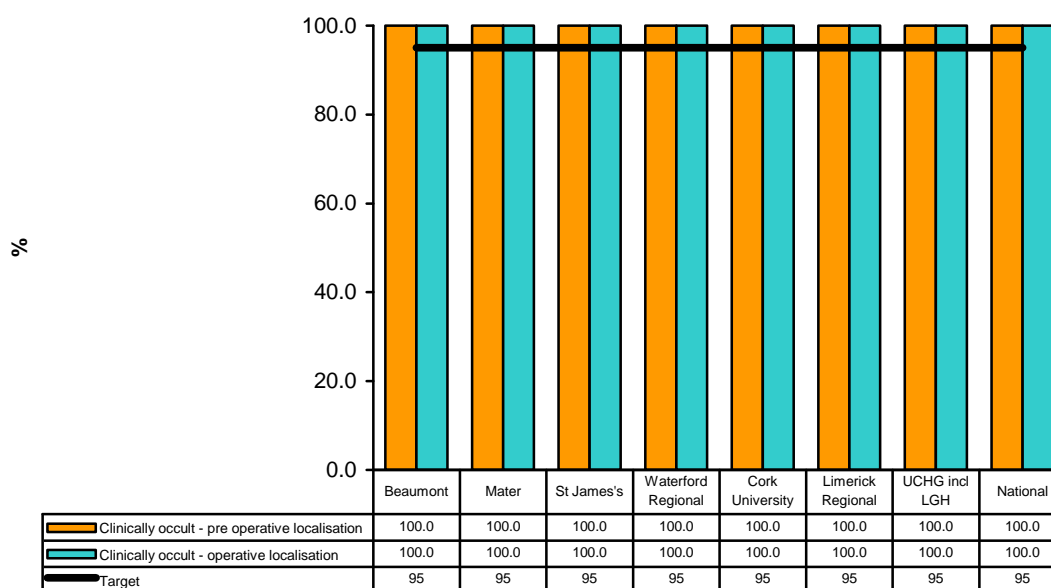
The sixth standard states that “breast tumours are localised as accurately as possible” [3].

The diagnosis of breast cancer is a multidisciplinary activity, requiring input from experienced professionals. Accurate localisation is required to ensure that targeted tissue material is available to pathologists [4,5].

Some tumours cannot be palpated on clinical examination – these are deemed to be clinically occult. Two parameters relate to the management of these tumours. The first KPI requires that over 95% of clinically occult tumours are defined using wire-localisation before surgery.

The second KPI requires that over 95% of those patients who have a wire-guided local excision will have specimen mammography.

Figure 8. Clinically occult lesions - accurate localisation by cancer centre



Both KPI targets have been met by all centres for 2011 (Figure 8). No patient in St Vincent’s Hospital presented with a clinically occult lesion.

Surgery

Standards 7, 8 and 9 relate to surgery.

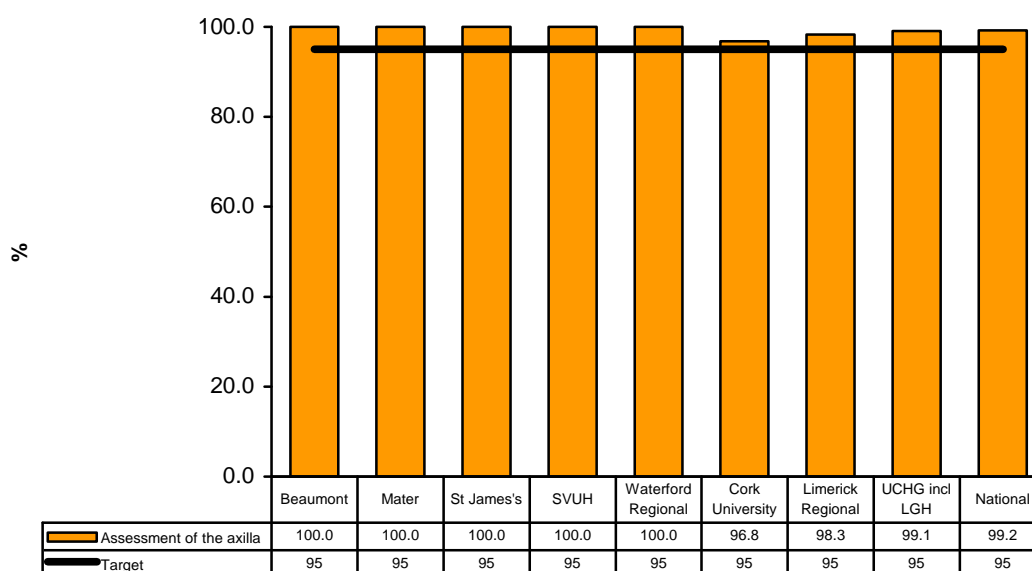
Standard 7 – Axillary Staging

The seventh standard relates to axillary staging and states that “surgical staging of the axilla is performed in all newly diagnosed patients with a primary operable breast cancer” [3].

Lymph node status is a major prognostic indicator and a key determinant of appropriate adjuvant therapy.

The KPI requires that more than 95% of patients with a diagnosis of primary operable invasive breast cancer will have an ultrasound of the axillary nodes.

Figure 9. Axillary ultrasound by cancer centre



This was achieved in all eight designated cancer centres in 2011 (Figure 9), replicating the finding in 2010.

Standard 8 – Surgical Specialisation

The evolution of the discipline of surgical oncology requires that consultant surgeons who treat patients with breast cancer have specific training and expertise in breast surgery and are familiar with the developments in other specialist disciplines involved in the management of breast cancer. Better outcomes have been demonstrated for patients who are treated by high volume or specialist doctors. Countries that have

centralised their breast cancer services have seen improvements in survival that are independent of age, stage and social class [6, 18, 19].

The KPI that monitors this standard requires that consultants should assess and operate on a minimum of 50 new patients with breast cancer per year. In 2010, 22/32 consultant surgeons assessed and operated on more than 50 new patients with breast cancer per year. This total included work undertaken in a public hospital only. Some consultants have joint appointments in private hospitals. In 2011, 23/33 consultant surgeons assessed and operated on more than 50 new patients with breast cancer per year.

Standard 9 – Accuracy of Surgical Interventions

Surgical treatment of breast cancer is such that patients may be suitable for a number of surgical interventions. Breast conserving surgery or mastectomy are two common options. Studies have shown no difference in survival between breast conserving surgery and mastectomy. It is not uncommon for those who undergo breast conserving surgery to need additional procedures to ensure the tumour has been completely removed. Patients prefer fewer and less invasive procedures. However, this preference must be balanced against the requirement for complete excision of the tumour [4-6, 19].

International targets suggest that more than 95% of patients should have three or fewer therapeutic operations.

In 2011, all eight centres reported that 95% or more patients who underwent breast conserving surgery had three or fewer therapeutic operations, replicating the finding in 2010.

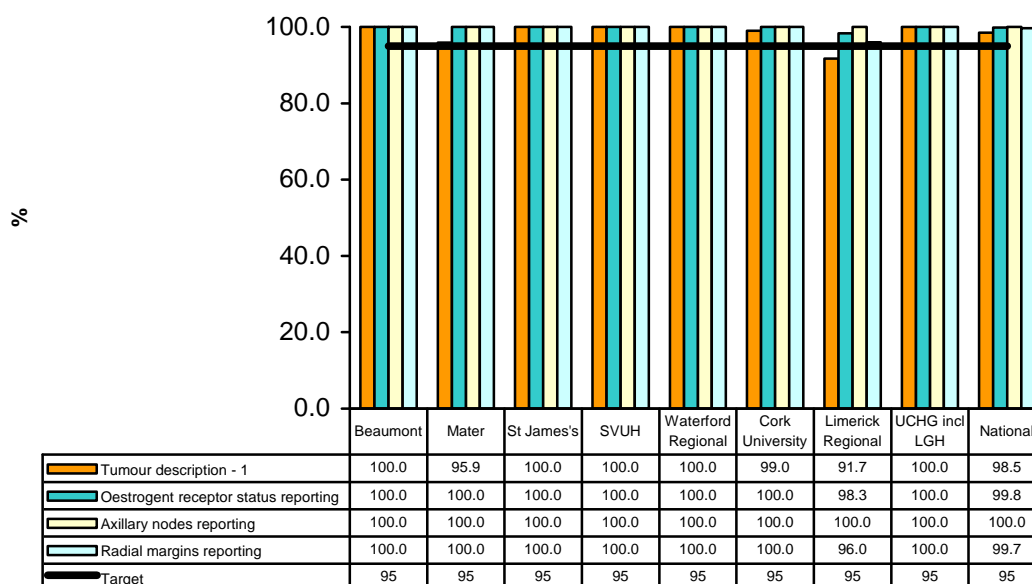
Standard 10 – Pathology

The tenth standard states that “pathology reports should include a standard set of prognostic indicators that will be available to the multidisciplinary team in a timely fashion” [3].

Comprehensive, accurate, timely information on the pathology of the tumour is essential for treatment planning [4-6, 19].

There are four KPIs for this standard. The first three examine the completeness of recording of the pathologists’ findings, looking at different elements that should be contained in the report.

Figure 10. Completeness of pathology reporting by cancer centre



In 2011, all centres met the targets across all three KPIs measuring tumour description, axillary lymph node status and radial margin status. This is an improvement on 2010 findings, when six out of eight designated cancer centres achieved the target in all of these parameters.

The fourth KPI focuses on the timeliness of the pathology report and requires that in more than 95% of cases, the histopathology report containing the prognostic data will be available to the treating consultant within 10 working days. In 2011, six centres met the target of 95%, compared to five centres in 2010. Lack of capacity was cited as the main reason for not achieving the target in Limerick Regional Hospital. Limerick achieved 85% in 2011 compared to 81% in 2010. Waterford Regional Hospital met the target in 2010 but had dropped to 84% in 2011.

Conclusions

Overall, significant progress has been made in 2011. Across all KPIs, improvements have been recorded in achieving national targets. While some difficulties remain in individual centres, most hospitals have made significant improvements and have either met the targets or progressed considerably towards meeting them.

Performance measures are useful in directing the health service in delivering a better service to patients and assist in tracking where the patient care pathway is strong or where it needs particular attention. Targets should be challenging but achievable. Meeting targets is important but identifying and tackling potential system problems early is even more important. Performance measures, properly interpreted, assist with early detection of problems and provide evidence of a responsive service when measures are seen to improve. In 2011, the Key Performance Indicators have further demonstrated evidence of a high quality service as well as providing the NCCP with some useful markers for further improvement.

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