ORTHOPAEDIC
AND
CAESAREAN SECTION

SURGICAL SITE INFECTION

ANNUAL
SURVEILLANCE REPORT

2011

ABERTAWE BRO MORGANNWG
UNIVERISTY HEALTH BOARD

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INTRODUCTION

In November 2002 the NHS Management Board in Wales agreed to adopt measures to reduce healthcare associated infections. The first step was to make orthopaedic surgical site infection surveillance mandatory in all sites in Wales performing joint replacement. A Welsh Health Circular (WHC (2003) 43) was issued to Chief Executives informing them of this and the Welsh Healthcare Associated Infection Programme (WHAIP) was instructed to develop and support the implementation of the surveillance. In September 2004, the Welsh Assembly Government launched 'Healthcare Associated Infections – A Strategy for Hospitals in Wales', stating that current mandatory surgical site infection surveillance involving orthopaedic surgery would be extended to other specialities (section 5.8, page 30). WHAIP again developed and supported the implementation of surveillance of infections following Caesarean section procedures undertaken in NHS hospitals in Wales. A Welsh Health Circular was issued to Chief Executives informing them of this (WHC (2005) 093).

Surgical site infections (SSI) are a substantial cause of mortality and morbidity among hospitalised patients. Studies on orthopaedic surgical site infections have shown them to result in considerable increases in lengths of stay, high re-hospitalisation rates, and significant reductions in health-related quality of life[1,2]. SSI is the second most common infection following a C-section within a group of patients who are generally considered to be young, fit and well females[3]. Complications of both surgery have high human and financial costs[1,2,4].

The data presented here is a summary of information provided by the six Health Boards in Wales performing orthopaedic surgery and / or caesarean section procedures. The report includes data captured both during the hospital stay and post-discharge. The surveillance incorporates data collected by clinical teams (and midwives for c-section surveillance) and uses internationally agreed definitions[4], allowing Welsh data to be compared with and be incorporated into other international databases, such as the ECDC SSI database[5]. The purpose of the surveillance is to assist sites in monitoring their infection rates over time, to assess the risk and communicate this locally.

1. ORTHOPAEDIC SSI SURVEILLANCE

ALL WALES SUMMARY

- This annual report covers SSI associated with elective primary hip arthroplasty and elective primary knee arthroplasty.

- A total of 3078 questionnaires were received for hip arthroplasties in 2011. 3038 (99%) of forms could be further analysed for determining the overall SSI rate for 2011.

- 31 inpatient infections and 33 post-discharge infections were detected following hip arthroplasties in 2011, giving a crude overall SSI rate of 2.1%. This has increased since 2010 (1.7%).

- A total of 3770 questionnaires were received for knee arthroplasties in 2011. 3735 (99%) of forms could be further analysed for determining the overall SSI rate for 2011.

- 18 inpatient infections and 49 post-discharge infections were detected following knee arthroplasties in 2011, giving a crude overall SSI rate of 1.8%. This has decreased since 2010 (2.4%).

- The SSI rates should be treated with caution due to the varying compliance with the surveillance coupled with some data being invalid.

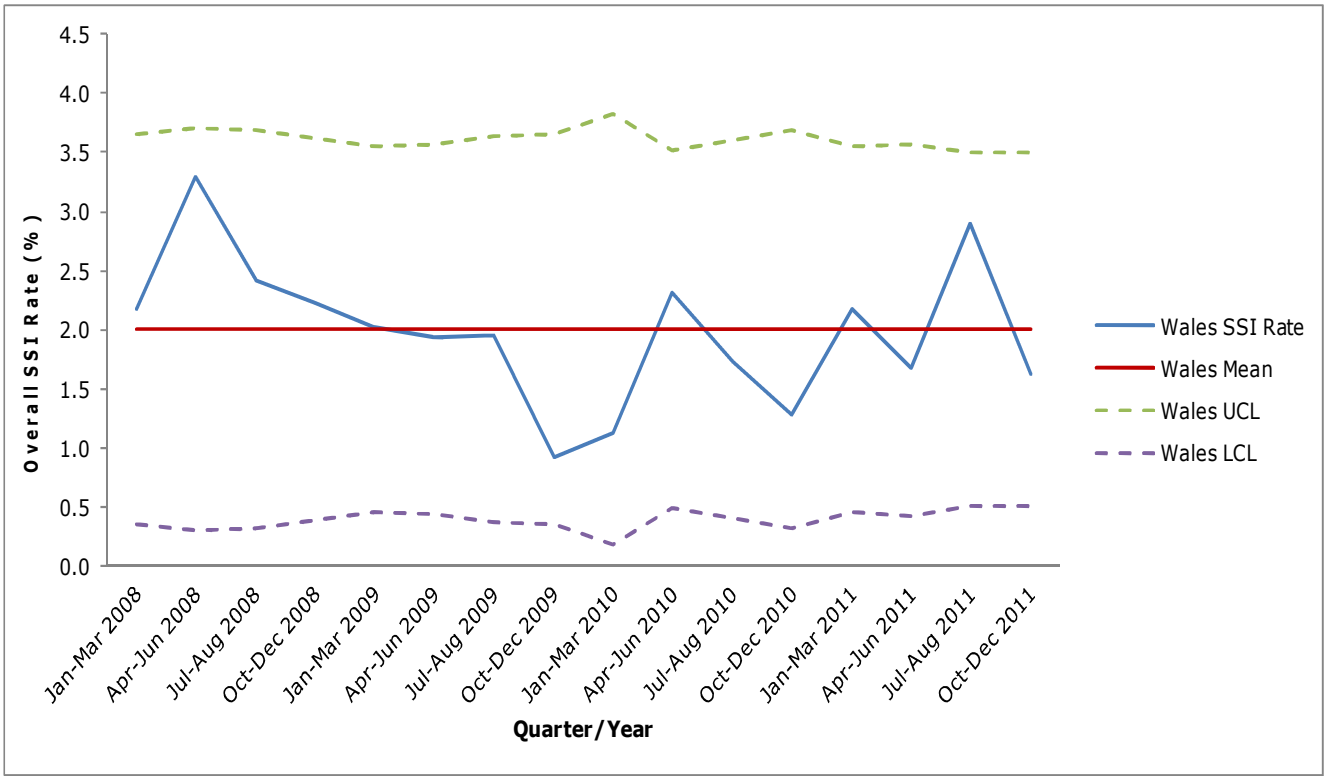
- There has been no significant decrease in the quarterly rate of SSI following hip or knee arthroplasties since 2008.

ALL WALES RESULTS

All Wales orthopaedic SSI rates for the period 01/01/2011 - 31/12/2011

Mandatory procedure	Number of forms received	Number of valid forms received	Number of inpatient SSI	Number of post-discharge SSI	Overall SSI Rate
Elective primary hip arthroplasty	3078	3038	31	33	2.1%
Elective primary knee arthroplasty	3770	3735	18	49	1.8%
Total	**6848**	**6773**	**49**	**82**	**1.9%**

All Wales elective primary hip arthroplasty overall quarterly SSI rates for the period 01/01/2008 - 31/12/2011

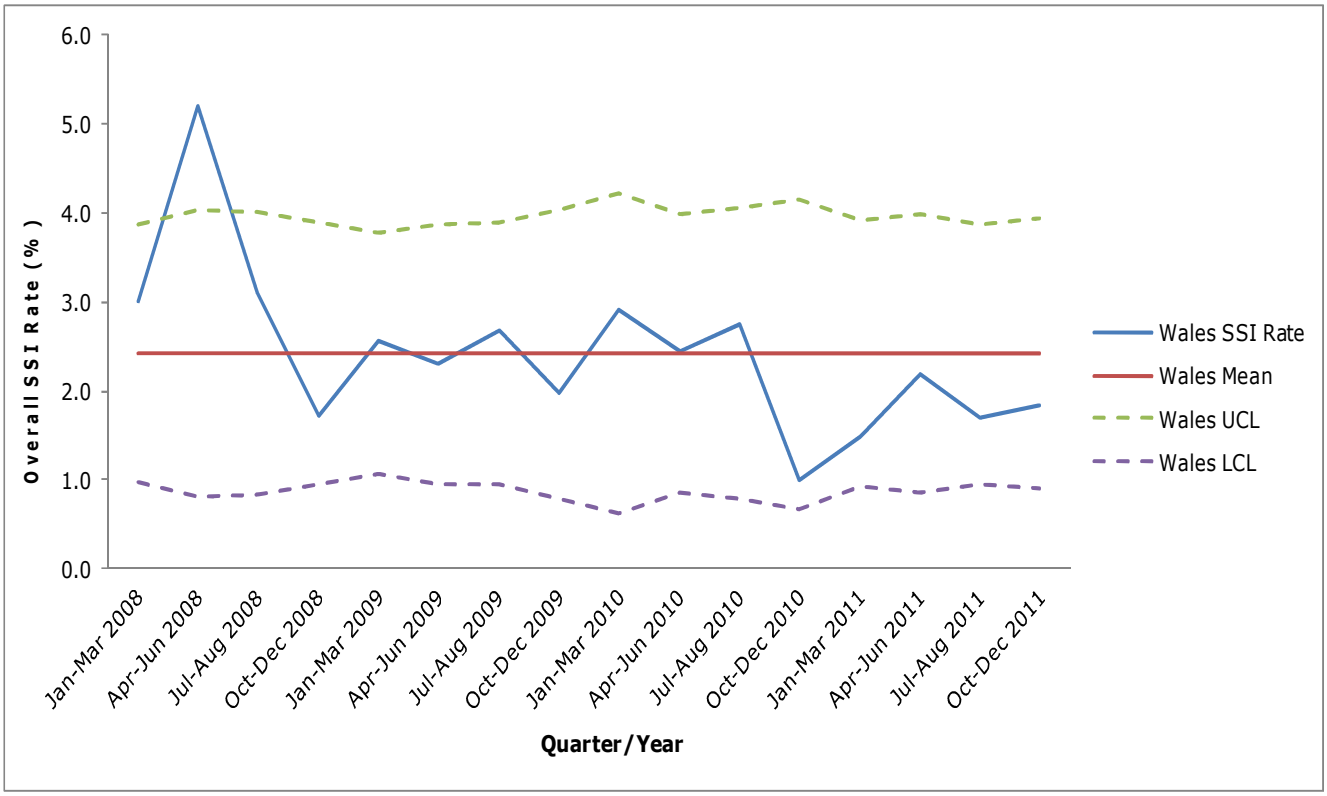


All Wales elective primary hip arthroplasty annual overall SSI numbers for the period 01/01/2008 - 31/12/2011

Year	Number of valid forms received	Number of overall SSI
2008	2545	64
2009	2784	48
2010	2624	44
2011	3038	64

N.B. These numbers may differ from the previously published annual reports if more forms have been received after the annual report for that time period was published

All Wales elective primary knee arthroplasty overall quarterly SSI rates for the period 01/01/2008 - 31/12/2011



All Wales elective primary knee arthroplasty annual overall SSI numbers for the period 01/01/2008 - 31/12/2011

Year	Number of valid forms received	Number of overall SSI
2008	3650	116
2009	3944	95
2010	3016	69
2011	3735	67

N.B. These numbers may differ from the previously published annual reports if more forms have been received after the annual report for that time period was published

2. CAESAREAN SECTION SSI SURVEILLANCE

ALL WALES SUMMARY

- This annual reports covers SSI associated with lower and upper uterine segment c-section procedures and excludes c-section hysterectomy.

- A total of 7679 questionnaires were received for 2011. 7439 (97%) of forms could be further analysed for determining the overall SSI rate for 2011.

- 40 inpatient SSI and 525 post discharge SSI were detected for 2011, giving a crude overall SSI rate of 7.6%. This is a decrease in the rate of 29% compared to 2010 (10.7%).

- The SSI rates should be treated with caution due to the varying compliance with the surveillance.

- Trend data over time has shown the SSI rate to decrease since 2007. Furthermore the overall SSI rate has more than halved when comparing data for 2011 with 2007.