

## **VICNISS Quarter 2, 2004 Reports**

### **Interpretation of Caesarean Section Reports**

Caesarean sections are reported differently to other VICNISS procedures. The standard risk index using ASA score, wound class and duration of procedure has been shown to be ineffective in predicting infection risk for caesarean sections.

Instead of using the risk index to stratify patients, a formula (based on the results of logistic regression analysis of a large sample) is used to calculate the probability of infection for each patient based on a number of risk factors. These probabilities are then added together to get an expected number of infections for each group of patients. Different risk factors proved to be important for wound infections than for endometritis, thus two calculations are carried out for each patient: the first predicts the probability of contracting a superficial or deep wound infection (SSI) and the second predicts the probability of an organ space infection (endometritis).

For example, if for a group of 100 patients the probabilities for endometritis add to 1.75, this means that in this group of patients you would expect to get 1.75 cases of endometritis. This number is then compared with the actual infections seen (observed infections) to produce a Standardized Infection Ratio (SIR). The SIR is the number of observed infections in the sample divided by the number of infections expected in the sample. If the SIR is less than one, this means that less infections were observed than expected, whereas if the SIR is greater than one then more infections were observed than were expected to occur.

Due to the fact that not all data are currently able to be risk adjusted, data are presented in two ways. The first two tables contain the results for the risk adjusted data. These data are presented as the total number of CSEC procedures submitted, the number that had the necessary risk factors to allow the calculation of a probability of infections, the expected number of infections, the observed number of infections and finally the SIR.

Secondly, crude infection rates are presented, as not all data are currently able to be risk adjusted. These rates are NOT risk adjusted.