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TITLE: AN AUDIT OF PERINATAL MORTALITY AND MORBIDITY AT A DISTRICT HOSPITAL

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ABSTRACT

BACKGROUND: Globally, perinatal mortality accounts for a large proportion of child deaths. Perinatal mortality rate (PNMR) is taken as an index of efficient obstetric care, and also serves as an indicator for the Millennium Development Goals (MDGs) 4 and 5, that is related to infant mortality rate and improving maternal health (Day, Monticelli, Barron, et al., 2010). In developed countries, perinatal mortality rate has shown a marked decrease over the past few years. This is mostly due to the changing patterns in reproductive health, improved socio-economic factors and quality of maternal and child care (World Health Organization, 2006). However, developing countries are still struggling to curb perinatal deaths. In South Africa, there has been a gradual decline in the PNMR in public health facilities from 38.6 in 2003/2004 to 31.0 per 1000 live births in 2008/2009. However, there has been a slight increase to 32.8 per 1000 live births in 2010/2011 (Day, Barron, Massyn, et al., 2012). In the Mpumalanga province, the PNMR has decreased slightly from 34.9 per 1000 live births in 2008/2009 to 33.2 per 1000 live births in 2010/2011. Carolina Hospital itself has a PNMR which is far too high at 43 per 1000 live births from January to June in 2008/2009. It is assumed that because the sub-district is underserved with primary health care facilities as well as having a poor attendance of antenatal care services by pregnant women, this has subsequently had a negative effect on perinatal care. However, this has never been formally assessed.

AIM: The aim of the study was to describe the perinatal mortality and morbidity, and to identify the causes and avoidable factors of perinatal mortality and morbidity at Carolina Hospital for the period 1st April 2009 to 31st March 2011.

METHODOLOGY: The setting for the study was the maternity unit of Carolina Hospital, a district hospital in the Gert Sibande district, Mpumalanga. It comprised of

a retrospective record review of data from the maternity registers and the Perinatal Problem Identification Programme (PPIP); from the 1st April 2009 to the 31st March 2011. All the records of perinatal deaths (N=94) and admissions (N=35) of babies 7 days old and younger during the study period were included in the study and no sampling was done for these two groups of patients. For all other delivery records, systematic sampling was utilized by choosing every tenth record listed on the sampling frame. Data was extracted from the PPIP and maternity registers using data extraction sheets. Data was captured onto a Microsoft excel based spreadsheet, imported into and analyzed with EPI-Info software version 3.5.1 using descriptive and analytic statistics. Data was collected the number of perinatal deaths, admissions, total number of deliveries, neonatal and maternal profile, causes of perinatal mortality and morbidity and factors associated with perinatal mortality and morbidity

RESULTS: During the period of the study there was a total of 1 604 deliveries with 94 perinatal deaths and 35 perinatal admissions. The perinatal mortality rate was 61.4 per 1000 live births with a stillbirth rate of 47 per live births; and an early neonatal death rate of 14.4 per 1000 live birth. Nine percent of the mothers were unbooked, and this accounted for 11.4% of perinatal morbidity and 17% of the mortality which occurred during the study period. Over a third (34%) of the perinates who died were born from HIV positive mothers; whilst more than halve (54.3%) of those perinates who were admitted during the perinatal period were born from HIV positive mothers. Over two thirds (63.2%) of the perinatal deaths were below 2500g while half (45.7%) of admissions were below this birth weight. Intrauterine death (40.4%) was the leading cause of perinatal mortality at Carolina Hospital for the two years of study. Over the two year study period, patient related factors were the highest avoidable factors given, accounting to 72.9% of the total while health care related avoidable factors accounted to 39.5% of the perinatal mortalities and morbidities.

CONCLUSION: The study found that there was a high PNMR and high still birth rate at Carolina Hospital. The majority of the avoidable factors were patient related. The

reasons for this included late booking, delay in seeking medical attention during labour, never initiating antenatal care, infrequent visits to the clinic, and inappropriate response to poor fetal movement. In order to achieve the Millennium Development Goal 4 more attention should be given to reducing perinatal deaths. These indicate a need to strengthen the quality of ANC rendered, especially in the primary health care facilities.

RECOMMENDATIONS: There is a need to strengthen maternal and child health services in the maternity unit of Carolina Hospital, and in the surrounding clinics within the Albert Luthuli sub-district. Clinical governance should be strengthened within Carolina Hospital. There is also a need for maternal and child health specialist outreach services within the Gert Sibande district health as a whole.