SYSTEMATIC REVIEW ON THE INCIDENCE/PREVALENCE OF STILLBIRTHS

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FETAL DEATH
Definition

Fetal death has been defined by the World Health Organization as death before complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy.
OBJECTIVE

To provide a tabulation of the incidence of stillbirths in different settings
CRITERIA FOR CONSIDERING STUDIES FOR THIS REVIEW

Type of participants
- pregnant women or women with at least one stillbirth in the past

Type of study design used
- any study in English providing prevalence or incidence of stillbirths will be included for assessment (including cross-sectional, cohort and surveys of incidence)

Type of outcome
- incidence of stillbirths
EXCLUSION CRITERIA

- Studies with no data about incidence of stillbirths
- Studies with no data about total number of live births
- Studies that provide data on stillbirths associated with very specific risk factors (e.g. fetal malformations, pregnant women with diabetes)
- Case-control studies
- Reports referring to data collected from before 1980
SEARCH STRATEGY

- Electronic data bases of Medline from 1998 till 2003
- Articles with data about incidence of stillbirths from the reports identified by:
  
  The WHO systematic review on the epidemiological evidence for maternal morbidity and mortality (project A 15060).
DATA EXTRACTION FORM

- Module I - general information
- Module II - characteristics of the study
- Module III – data reporting stillbirths
RESULTS

27 studies

Incidence of stillbirths: 0.15% to 10%
DISTRIBUTION OF DATA ON INCIDENCE OF STILLBIRTHS (%) ACCORDING TO COUNTRY OF ORIGIN

[Bar chart showing the incidence of stillbirths in various countries: USA, UK, SCOTLAND, TURKEY]
DISTRIBUTION OF DATA ACCORDING TO TYPE OF ESTIMATES: CRUDE/ CRUDE AND ADJUSTED

- 33.33% for CRUDE
- 66.67% for CRUDE AND ADJUSTED
DATA BY TYPE OF PREGNANCY

- Singletons: 5
- Twins: 4
- S+T: 3
- Not mentioned: 15
DATA BY STUDY DESIGN

- Cohort: 19
- Cross-sectional: 2
- Incidence survey: 6
STUDIES REPORTING INCIDENCE OF EARLY NEONATAL DEATH

- REPORTED: 51.85%
- NOT REPORTED: 48.15%
STUDIES INCLUDING DEFINITION OF STILLBIRTH

55.56% INCLUDED
44.44% NOT INCLUDED
STUDIES ACCORDING TO SOCIO-ECONOMIC LEVEL

- DEVELOPED: 18
- DEVELOPING: 9
DATA ACCORDING TO TIME OF DEATH

- INTRAPARTUM: 1
- ANTEPARTUM AND INTRAPARTUM: 4
- NOT MENTIONED: 22
REPORTING DATA RELATED WITH AGE OF PREGNANCY
NO. OF STUDIES REPORTING THE OBSTETRICAL HISTORY OF WOMEN

- NOT MENTIONED 21
- MENTIONED 6
NO. OF STUDIES REPORTING THE AGE OF PATIENTS

- MENTIONED: 6
- NOT MENTIONED: 21
DISCUSSION

- The limit between miscarriage and stillbirth
- Data according to socio-economic level of the countries
- Data regarding gestational age, type of the pregnancy and health characteristics of the women
CONCLUSIONS

- The incidence of stillbirths is comparable in most settings at around 1-2% of total number of births.

- Fifty-five % of studies mentioned the definition of stillbirths and the limit between miscarriage and stillbirth varied from 20 weeks of gestation (United Kingdom) till 28 weeks of gestation (India).

- In our review more than half of the studies did not report the data by antepartum or intrapartum events, type of pregnancy, obstetrical history of the mother or pregnancy age.
CONCLUSIONS

- The majority of the studies (21) were carried out in developed countries and the incidence of stillbirths in these studies varied from 0.15% to 2.2%.

- Developing countries have an incidence of stillbirths between 0.40% and 10%. Most of the results higher than 2% were identified in developing countries.

- Countries and regions within countries should conduct regular audits of registration practices to determine geographic and temporal trends in the occurrence of livebirths and stillbirths.