

GUIDELINE: Alcohol consumption in pregnancy and care of the neonate

SCOPE: Maternity and Neonatal Unit

AUTHOR: NNU Quality Co-ordinator

PURPOSE: To assess maternal alcohol use and provide optimal antenatal and post-partum care for the mother and infant

DEFINITIONS:

Fetal Alcohol Syndrome (FAS) – the most severe form of adverse neonatal and paediatric effects which occur with maternal alcohol consumption during pregnancy.

Fetal Alcohol Effect (FAE) – less marked form of adverse effects which occur with maternal alcohol consumption in pregnancy including growth and developmental delay, learning disabilities and behavioural problems.

Fetal Alcohol Spectrum Disorder (FASD) is an umbrella term used to describe a range of adverse effects due to maternal alcohol consumption including FAS and FAE. This term is more useful and is used in this guideline.

GUIDELINE

The Ministry of Health advises that there is no known safe level of alcohol use at any stage of pregnancy. This includes the time around conception. The best advice is for a woman to stop drinking alcohol while pregnant or when planning a pregnancy (Ministry of Health 2010). This advice is supported by the Alcohol Advisory Council of New Zealand (ALAC).

Women who drink alcohol when pregnant are more likely to give birth to babies who are smaller, premature and have developmental, behavioral or physical problems (FASD).

The rate of FASD reported in studies varies because affected individuals are not consistently identified. The number of individuals affected by milder symptoms of FASD is unknown.

Alcohol can cause a continuum of effects with no safe amount and no safe time for exposure to alcohol in pregnancy. Alcohol freely crosses the placenta and is known to be a teratogen. Infants whose mothers consume alcohol during pregnancy can have acute withdrawal presenting several hours after birth as well as chronic non reversible effects defined as Fetal Alcohol Spectrum disorder (FASD).

Alcohol appears to have a negative effect throughout pregnancy, not just during the first trimester. Binge drinking during pregnancy appears particularly harmful.

Stillbirth and FASD are the most serious consequences of prenatal exposure to alcohol. Other factors which will influence outcomes are smoking and poor nutrition which are frequently associated with alcohol use.

The spectrum of features that may occur with FASD include

- Intrauterine and post-natal growth problems – weight below 10th centile for gestational age on a customised centile chart or Gestational Network Charts.
- Facial abnormalities, including smaller eye openings, flattened cheekbones, thin upper lip, and indistinct philtrum (an underdeveloped groove between the nose and the upper lip)
- Central nervous system abnormalities – decreased cranial size at birth, structured brain abnormalities, neuro sensory hearing loss
- Small head circumference
- Failure to thrive
- Developmental delay
- Congenital cardiac abnormalities including Ventricular Septal Defect (VSD), Co-arctation of the Aorta and Tetralogy of Fallot
- Skeletal abnormalities
- Seizures
- Poor coordination/fine motor skills
- Poor socialization skills, such as difficulty building and maintaining friendships and relating to groups
- Lack of imagination or curiosity
- Learning difficulties, including poor memory, inability to understand concepts such as time and money, poor language comprehension and poor problem-solving skills
- Behavioural problems, including hyperactivity, inability to concentrate, social withdrawal, stubbornness, impulsiveness and anxiety

FASD is often described as a hidden or invisible disability. The less marked disorders of FASD are more difficult to diagnose and may be associated with other conditions such as Attention Deficit Hyperactivity Disorder, Autistic Spectrum Disorder and Conduct Disorder. The diagnosis of FASD generally requires a specialised, multidisciplinary assessment.

Antenatal

All pregnant women should be screened for alcohol use.

There is no known safe level of alcohol consumption at any stage during pregnancy.

The New Zealand Ministry of Health advises women who are pregnant, planning pregnancy or breastfeeding to avoid any alcohol (Ministry of Health, 2010).

Maternal cessation of alcohol **at any point** during the pregnancy is beneficial as children born to women who stop drinking even late in gestation have better outcomes than women who continue to drink throughout their pregnancy.

If a woman has an alcohol dependency the Lead Maternity Carer (LMC) discussed with the woman that a consultation may be warranted with another primary health provider (such as drug and

alcohol services) her pregnancy, labour, birth or puerperium (or the baby) may be affected by the condition (Referral Guidelines Code 1058).

Fetal growth should be monitored.

Alcohol consumption in pregnancy is often associated with cigarette smoking and poor nutrition which will also impact on intrauterine growth and preterm delivery. Other characteristics associated with women at higher risk of having an alcohol exposed pregnancy include low income, housing difficulties, domestic violence, substance abuse, a partner or family member who drinks heavily, psychological stress or a mental health disorder.

Referral for help with management of alcohol dependency or other issues may be required in the antenatal period. This may include a Vulnerable Pregnant Women (VPW) or Oranga Tamariki referral if there are serious concerns about the safety of the woman and her children/newborn; referral to Te Hiringa Matua pregnancy and parenting support for whanau with serious addiction issues.

After birth

Referral to Paediatricians

The infant of a mother with a history of substance abuse or high risk alcohol consumption should be referred for Paediatric review. The LMC must recommend to the parents of the baby that a consultation with a specialist is warranted (Referral Guidelines Code 8043).

Examples of substance abuse as described in the Referral Guidelines are methadone, marijuana, alcohol, codeine and valium. Individual assessment and planned post-natal care will identify infants who require close observation. Infants who have been exposed to alcohol will require observation.

Observation of the baby

The baby should have regular and careful observation of their general condition, colour and behaviour.

Temperature and respirations should be recorded on an infant's observation chart at 1 hour and subsequently 3 hourly for at least the first 24 hours of age or longer if indicated

Hypoglycaemia

Infants who are SGA (less than 10th centile) and infants who are preterm are at risk of hypoglycaemia and should be monitored appropriately. (see Infants at risk of hypoglycaemia guideline).

Extensive searching has not revealed any evidence based human studies linking maternal alcohol use with neonatal hypoglycaemia. However, some authors state this may occur with alcohol withdrawal and anecdotal observation would support this.

Close observation for symptoms of hypoglycaemia and encouragement of frequent feeding and thermal management of the baby will assist in prevention/early detection of hypoglycaemia.

Acute withdrawal from alcohol.

All infants who have been exposed to alcohol will require observation for signs of withdrawal. Withdrawal begins during the first 3-12 hours after delivery with an initial phase (lasting approximately 72 hours) of hyperactivity, irritability, poor sleeping patterns, tremors and/or seizures. Hypoglycaemia and acidosis may be present. A lethargic phase lasting 48 hours may follow before the infant shows more normal activity and responsiveness. Infants exhibiting signs of acute withdrawal should be referred to the Paediatrician. (see Neonatal Abstinence Guideline).

Family Education

- **BABY ESSENTIALS: Bed sharing is unsafe if either parent has been drinking alcohol or ingesting substances, or is a smoker or the baby's mother has smoked during pregnancy.** Low birth weight and preterm babies are more vulnerable than full term babies with normal weights. It is therefore essential that optimal infant positioning is modeled and promoted. The leaflet 'Back is Best' is provided to all postnatal women (*see guideline Babies and bed sharing or co-sleeping*)
- **SMOKEFREE BABIES:** If the mother has smoked during pregnancy the baby is more vulnerable to sickness, asphyxia and SUDI. The family can reduce the risks by ensuring safe sleeping practice, breast feeding and not letting the baby smell or breathe tobacco smoke. They need to ensure that a smoke free environment is established and Safe Sleep care occurs if the baby is with other care givers. Smoking cessation flowchart should be completed and support should be offered to all women and their partners who smoke or are recent ex-smokers.
- **SAFE SLEEP:** A safe sleep device (Pepi-Pod or wahakura) should be offered to babies who are in a household where there is regular smoking, alcohol or drug use.
- **WARMTH:** If the baby has a low birth weight or is premature it will be more vulnerable to becoming cold than a term baby of normal weight. Adequate clothing, hats and bedding are essential.
- **FEEDING:** The baby should be encouraged to feed frequently until it has established vigorous breast feeding (or bottle feeding). The family should contact their LMC if the baby is not feeding well after discharge from hospital. The family should be taught to check nappies to see that the baby is passing urine and stools regularly.
- **SHAKEN BABY EDUCATION**

The baby and mother should remain in hospital until the baby is well and feeding vigorously.

Early discharge (less than 24 hours) is contraindicated.

Frequent post-natal visits following discharge are essential to assess feeding and weight gain and well-being.

A weight loss of more than 7% of birth weight should be regarded as an alert to review feeding practice and intake and to consider referral to the Paediatrician.

The LMC should ensure that the Well Child Services continuing the care of the baby are aware of concerns relating to alcohol exposure as there may be significant effects on the infant. Referral of the mother for alcohol related problems may be necessary in the post-natal period.

Breast feeding

Alcohol transfers into human milk readily. While breast feeding is encouraged, excessive alcohol consumption during breast feeding is discouraged.

If the amount of alcohol consumed is small and duration of consumption is modest it is generally not considered harmful.

However, alcohol consumption has been shown to reduce lactation. Drinking large amounts of alcohol can inhibit let down and delivery of milk to the infant and deplete milk supply and lead to drowsiness and decreased growth in infants. (Hale).

The effects of alcohol on the breastfeeding baby are directly associated with the quantity consumed. A significant difference was detected in motor development at one year of age in those babies subjected regularly to alcohol. (Hale).

ASSOCIATED DOCUMENTS

Management of well babies with low birth weights on the Maternity Unit guideline
Referral of inpatient neonates to the paediatric service guideline
Management of Hypoglycaemia of the Newborn guideline
Organisational policy Breastfeeding
Safe infant sleeping guideline

REFERENCES

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Ministry of Health. 2012. Guidelines for Consultation with Obstetric and Related Medical Services (Referral Guidelines). Wellington: Ministry of Health.
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