National Women & Infants Health Programme

QUICK SUMMARY DOCUMENT

Antenatal corticosteroids to reduce neonatal morbidity and mortality

This QSD is a resource for all clinicians working in healthcare in Ireland who are involved in the care of women requiring treatment with antenatal corticosteroids.

Following a comprehensive literature review a number of evidence-based recommendations were agreed upon.

Key Recommendations

1. A course of antenatal corticosteroids should be strongly recommended, where pre-term birth is anticipated between 24+0 and 34+6 weeks' gestation.
2. A course of antenatal corticosteroids should be offered to women where preterm birth is likely in the next 7 days from 23+0 weeks' gestation. This should be at the judgement of the senior treating Obstetric and Neonatal teams and in consultation with the woman/couple. This should occur even if it is anticipated that the full course of corticosteroids (two doses) may not be complete prior to delivery.
3. In certain circumstances it may be appropriate to offer antenatal corticosteroids from 22+5 weeks' gestation in anticipation of active neonatal management at 23+0 weeks.
4. For regional centres transferring to tertiary units for management of threatened preterm labour and/or for anticipated preterm birth under 28 weeks, commencement of antenatal corticosteroids should ideally be discussed with the receiving hospital.
5. A course of antenatal corticosteroids should not be routinely recommended between 35+0 and 36+6 weeks' gestation.
6. If late pre-term birth is likely to occur between 35+0 and 36+6 weeks' gestation, the potential risks and benefits of administration of antenatal corticosteroids should be discussed with the pregnant woman, to allow her to come to an informed decision with regards to their administration.
7. Routine administration of antenatal corticosteroids is not recommended before planned caesarean section from 37+0 weeks to 38+6 weeks' gestation.
8. Healthcare professionals should be aware that the knowledge base around antenatal corticosteroids is limited in some clinical scenarios.
9. Healthcare professionals and professional bodies have a responsibility to keep themselves informed on the changing evidence base and the balance between intended short-term benefits versus potential long-term harms of antenatal corticosteroids.
10. A course of antenatal corticosteroids should be strongly recommended, where pre-term birth in a multiple pregnancy is anticipated between 24+0- and 34+6-weeks' gestation. This is line with the recommendations for singleton pregnancy.
11. It should be explained to pregnant women that most of the evidence available examines the role of antenatal corticosteroids in singleton pregnancies, but data available for multiple pregnancy are very promising and suggest the benefits are similar.
12. Women with pre-existing diabetes or gestational diabetes should be offered antenatal corticosteroids within the same gestational ranges as to women without diabetes.
13. Close monitoring of blood glucose levels should take place in the days following administration of antenatal corticosteroids in women with pre-existing or gestational diabetes, and additional insulin administered if required, according to local protocols.

14. Women presenting with preterm prelabour rupture of membranes between 23+0- and 34+6-weeks' gestation should be offered antenatal corticosteroids as part of a bundle of obstetric care including prophylactic antibiotics.
15. Where there is evidence of clinical chorioamnionitis a course of antenatal corticosteroids may be started but should not delay delivery if indicated by maternal or fetal condition.
16. A course of antenatal corticosteroids consisting of 24 mg of dexamethasone phosphate administered intramuscularly, in two divided doses of 12 mg, given 24 hours apart, is recommended where antenatal corticosteroid administration is considered clinically appropriate. Administration of the second dose after a 12-hour interval may be considered where delivery is imminent.
17. An alternative course consists of 24 mg of betamethasone phosphate in two divided doses of 12 mg, given intramuscularly 24 hours apart. Administration of the second dose after a 12-hour interval may be considered where delivery is imminent.
18. In the presence of systemic infection, the potential beneficial effects of antenatal corticosteroids intended for the infant must be balanced against the effects of exacerbating the severity of infection for both the woman and her infant. Delivery should not be delayed to administer antenatal corticosteroids when there are serious concerns about the maternal or fetal condition that will be alleviated by expedited birth.
19. Where preterm birth is likely within 7 days, antenatal corticosteroid therapy should be initiated.
20. If preterm birth is imminent within the next 24 hours, it is still of benefit to initiate antenatal corticosteroids, even if treatment (the course) is incomplete.
21. Women should be counselled on the risks of neonatal hypoglycaemia where there is a shorter interval between corticosteroid administration and birth.
22. A single repeated dose (i.e., 12 mg) of antenatal corticosteroid may be considered on an individual basis for women at risk of imminent preterm birth greater than 7-14 days from the initial completed antenatal corticosteroid course (up to 34+6 weeks' gestation).
23. Women should be counselled on the risk of lower birth weight, length, or head circumference with repeated antenatal corticosteroid therapy.

Auditable standards

Audit using the key recommendations as indicators should be undertaken to identify where improvements are required and to enable changes as necessary, and to provide evidence of quality improvement initiatives.

Auditable standards for this guideline include:

1. Number of women giving birth between 23 and 25 weeks who receive a full course of antenatal corticosteroids as defined in the guidelines, which is two doses of 12 mg, administered 24 hours apart.
2. For women giving birth between 23 and 25 weeks, the number who receive any dose of antenatal corticosteroids and the interval between this and the preterm birth.
3. Number of women giving birth before 34+6 weeks who receive a full course of antenatal corticosteroids, as defined in the guidelines, which is two doses of 12 mg, administered 24 hours apart.
4. Number of women with threatened preterm labour before 35 weeks who receive antenatal steroids but who deliver beyond 35 weeks' gestation.
5. Number of women giving birth before 34+6 weeks who have received more than one course of antenatal corticosteroids.
6. Number of women who have an elective caesarean birth before 39 weeks' gestation and who have received a course of antenatal corticosteroids from 35 weeks onwards.

Recommended reading:

1. HSE Nomenclature for clinical audit www.hse.ie/eng/about/who/nqpsd/ncca/nomenclature-a-glossary-of-terms-for-clinical-audit.pdf
2. HSE National Framework for developing Policies, Procedures, Protocols and Guidelines at https://www.hse.ie/eng/about/who/qid/use-of-improvement-methods/nationalframeworkdevelopingpolicies/
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https://www.rcpi.ie/faculties/obstetricians-and-gynaecologists/national-clinical-guidelines-in-obstetrics-and-gynaecology/