

A Randomised Placebo-Controlled Trial of Antenatal Corticosteroids for Planned Birth in Twins: STOPPIT-3



This is a text summary of the videos which Dr. Sarah Murray and Dr. Rosie Townsend have put together regarding some of your frequently asked questions about the use of steroids in twin pregnancy.

Video 1: Glucose levels post antenatal corticosteroids (ACS)

Q: Will steroids affect my glucose levels in the long run?

A: Post-injection, your glucose levels will spike in the short-term, which can be managed by insulin if needed. But ACS injections will not raise glucose levels in the long-term in the mum.

Video 2: Neurodevelopment outcomes in children and ACS.

Q: Is there a link between these steroids and health issues and disorders in children?

A: Administering ACS during pregnancies at risk of pre-term labour can help mature babies lungs, may reduce the likelihood of needing ventilators and/or lower admission into a neonatal unit. It is possible that ACS have an effect on overall growth and the growth and development of the babies' brain. Previous studies have looked at large population datasets examining common mental health disorders and ACS, however more research is needed to conclusively associate steroid use and these disorders in children. A recent prospective follow up study, of children (6 years of age) of participants who were administered late-preterm ACS (in singleton pregnancies), reported no effect on childhood neurodevelopmental outcome. There is therefore a need to evaluate this in twin pregnancies, and the STOPPIT3 study aims to follow up children at 2 years of age to answer this question.

Video 3: Benefits & Risks of ACS.

Q: What are the Benefits and risks of taking ACS?

A: ACS are offered to pregnant women, when it is likely that the baby might be born preterm, in order for the ACS to mature babies lungs and prevent respiratory problems. ACS are routinely offered in singleton pregnancies for this reason, and we know that administering ACS before 35 weeks gestation,

the benefits can outweigh the risks. Taking ACS between 35-37 weeks gestation (Pre-term) is beneficial for the babies lung development but may also carry some risks or unwanted side effects e.g. in the short-term by lowering babies blood glucose levels and growth. Potential long-term side-effects (e.g. neurodevelopment disorders) are unknown currently, as there is insufficient evidence in twin pregnancies. The STOPPIT-3 study will address this uncertainty of taking ACS during this time-frame.

Video 4: When to take ACS.

Q: Is it worth taking ACS 'just incase' and if so when is the best time to have them-a week/two weeks before?

A: ACS have benefits for the babies', but only within 7 days of delivery, so we advise against giving repeated doses as a preventative measure. We recommend offering ACS to pregnant women when we know they are at high risk delivering preterm, within the next week.

Video 5 Administering ACS. Q: Why are there two injections of ACS? **A:** Two doses of ACS are administered, as it is the current guidance in the UK, based on the original clinical trials first showing the overall benefit of steroids. **Q:** What happens if you don't have both injections? Is having one half as effective? **A:** If you miss the second dose of ACS, you will still receive the benefit of the initial ACS dose. **Q:** Do you really have to have them in your bottom? **A:** The injection is into fatty tissue (upper thigh/bottom) to minimise pain/redness at the injection site.

Video 6 Side effects of ACS. Q: Why was I super hot and red after my ACS injection? **A:** ACS is a common drug used for example in people with asthma, skin conditions, COVID -19 and is also widely used in pregnancy. Most common side effects from ACS are pain and redness at the injection site. Heat/flushing has been reported but this is likely a transient response to steroids. **Q:** Does having the steroids bring on labour? **A:** There is no association between steroids and the onset of pre-term labour.

Video 7: Pre-eclampsia and ACS? Q: Would ACS injections have anything to do with developing pre-eclampsia? **A:** There is no association between taking ACS and causing pre-eclampsia. Pre-eclampsia is more common in twin pregnancies, and more commonly occurs earlier in pregnancy. Therefore women with both preeclampsia and twins early in pregnancy, are quite often offered steroids.

Video 8 Growth of babies' and ACS. Q: Will having ACS injections stop my babies growing? **A:** No, it will not stop the growth or development of babies during pregnancy. Babies who were exposed to ACS early on in pregnancy, and later delivered at term, have shown a small difference in birth weight on average. If there is a substantial risk of the baby being born early, it is in the babies' best interest to have those steroids.