

**SYNACTHEN TEST (Tetracosactrin or Tetracosactide)**

<b>Trade Name</b>	Synacthen® (Clinect NZ)
<b>Class</b>	Anterior pituitary lobe hormone (synthetic adrenocorticotrophic hormone)
<b>Mechanism of Action</b>	Stimulates adrenocorticoid production
<b>Supplied As</b>	A clear colourless aqueous solution for intramuscular injection or intravenous infusion in a 1 mL ampoule.  Each ampoule of Synacthen® i.m./i.v. 250 micrograms/mL also contains: acetic acid, sodium acetate, sodium chloride, water for injections. <sup>1</sup>
<b>Indication</b>	Diagnosis of suspected adrenocortical hypofunction <sup>2</sup>
<b>Dosage</b>	0 - 6 months – 62.5mcg
<b>Dilution</b>	N/A
<b>Interval</b>	Single IM dose if no pre-existing IV access Single IV dose if there is an IV already in-situ
<b>Administration</b>	This test should be performed in the morning if possible as normal cortisol levels show diurnal variation.
<b>Contraindications</b>	Known hypersensitivity to ACTH
<b>Compatible with</b>	Glucose 5%, Glucose 12.5%, Sodium Chloride 0.9% Do Not mix with any other medication
<b>Incompatible with</b>	Do not mix with any other medication
<b>Monitoring<sup>2</sup></b>	Take the 1 <sup>st</sup> 0.5mL blood sample for cortisol in an EDTA tube immediately prior to giving the tetracosactide  Take the 2 <sup>nd</sup> 0.5mL blood sample for cortisol in an EDTA tube 30 minutes post dose.  Observe the infant for allergic reactions during administration of the dose and for 30 minutes afterwards
<b>Stability</b>	Single use vial, discard remaining contents immediately after use.
<b>Storage</b>	Store in the fridge at 2-8 °C.  After the synacthen is ordered, Pharmacy will contact NICU when they have delivered the vial and placed it in the fridge
<b>Adverse Reactions</b>	Rare hypersensitivity or anaphylactic reactions – ensure full resuscitation facilities and medications are available.  Rash, abscess, increased infection risk, hypoglycaemia, sodium and fluid retention, hypokalaemia, bradycardia, cardiac failure,

	tachycardia, peripheral oedema, seizures and glaucoma however these effects are not expected with single dose diagnostic use						
<b>Metabolism</b>	Rapidly absorbed from IM sites. Hydrolysed in the liver and then cleared by the kidneys.						
<b>Comments</b>	Blood Samples are sent to the Steroid Laboratory for analysis						
<b>References</b>	<ol style="list-style-type: none"> <li>1. <a href="http://medsafe.govt.nz/profs/Datasheet/s/synactheninj.pdf">http://medsafe.govt.nz/profs/Datasheet/s/synactheninj.pdf</a></li> <li>2. Short Synacthen Test (ACTH Stimulation Test) CDHB ChildHealth Guidelines (Paediatric Endocrine Service).</li> <li>3. <a href="http://www.nzf.org.nz/nzf_3952">http://www.nzf.org.nz/nzf_3952</a></li> <li>4. <a href="http://www.micormedexsolutions.com">Neofax in www.micormedexsolutions.com</a></li> </ol>						
<b>Updated By</b>	<table> <tr> <td>A Lynn, B Robertshawe</td> <td>June 2017</td> </tr> <tr> <td>A Lynn, B Robertshawe</td> <td>April 2022 (update supplier and routine review)</td> </tr> <tr> <td>A Lynn</td> <td>Aug 2023 (IM as the usual route)</td> </tr> </table>	A Lynn, B Robertshawe	June 2017	A Lynn, B Robertshawe	April 2022 (update supplier and routine review)	A Lynn	Aug 2023 (IM as the usual route)
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