

Use of the Neocheck Tool to Evaluate Drug Therapy Practices in the NICU: a Prospective Study

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Literature review

- **1400** identified recommendations

Modified Delphi method

- **23** experts
→ **10** Swiss NICU

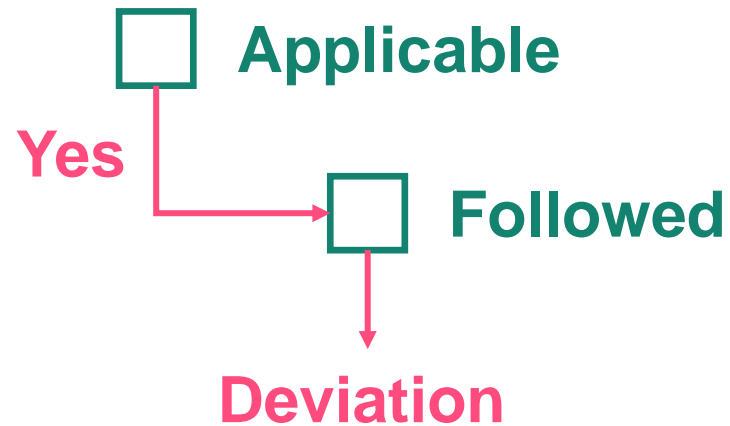
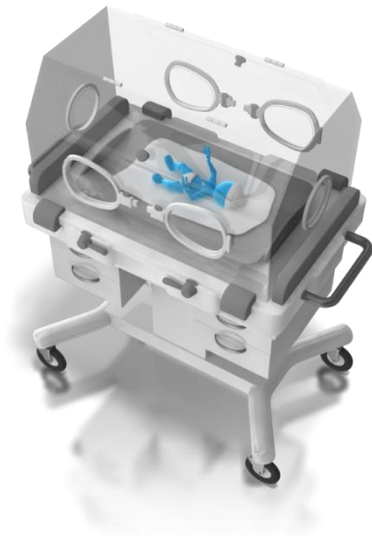
141 recommendations on the pharmacotherapy of neonates

	<p>Check in all neonates that a complete Vitamin K prophylaxis has been given at birth.</p>
Start	<p>Adequate prophylaxis depends on clinical context and gestational age: healthy neonates >34 weeks of gestational age; >2000g birthweight: 4 hours after birth: 2 mg of oral phytomenadione 4 days after birth: 2 mg of oral phytomenadione 4 weeks after birth: 2 mg of oral phytomenadione ill neonates / preterms with infusion / nil by mouth neonates: 4 hours after birth: 0.5 mg of IV/IM phytomenadione 4 weeks after birth: 2 mg of oral phytomenadione</p>
	<p>Grade of recommendations: National Guidelines</p> <p>Schubiger G, Laubscher B, Bänziger O, Société Suisse de Néonatalogie, Commission de nutrition de la Société suisse de pédiatrie, Société suisse de gynécologie et obstétrique. Prophylaxie à la vitamine K chez le nouveau-né : nouvelles recommandations. <i>Swiss Soc Neonatol.</i> 2003.</p>



12 weeks prospective study

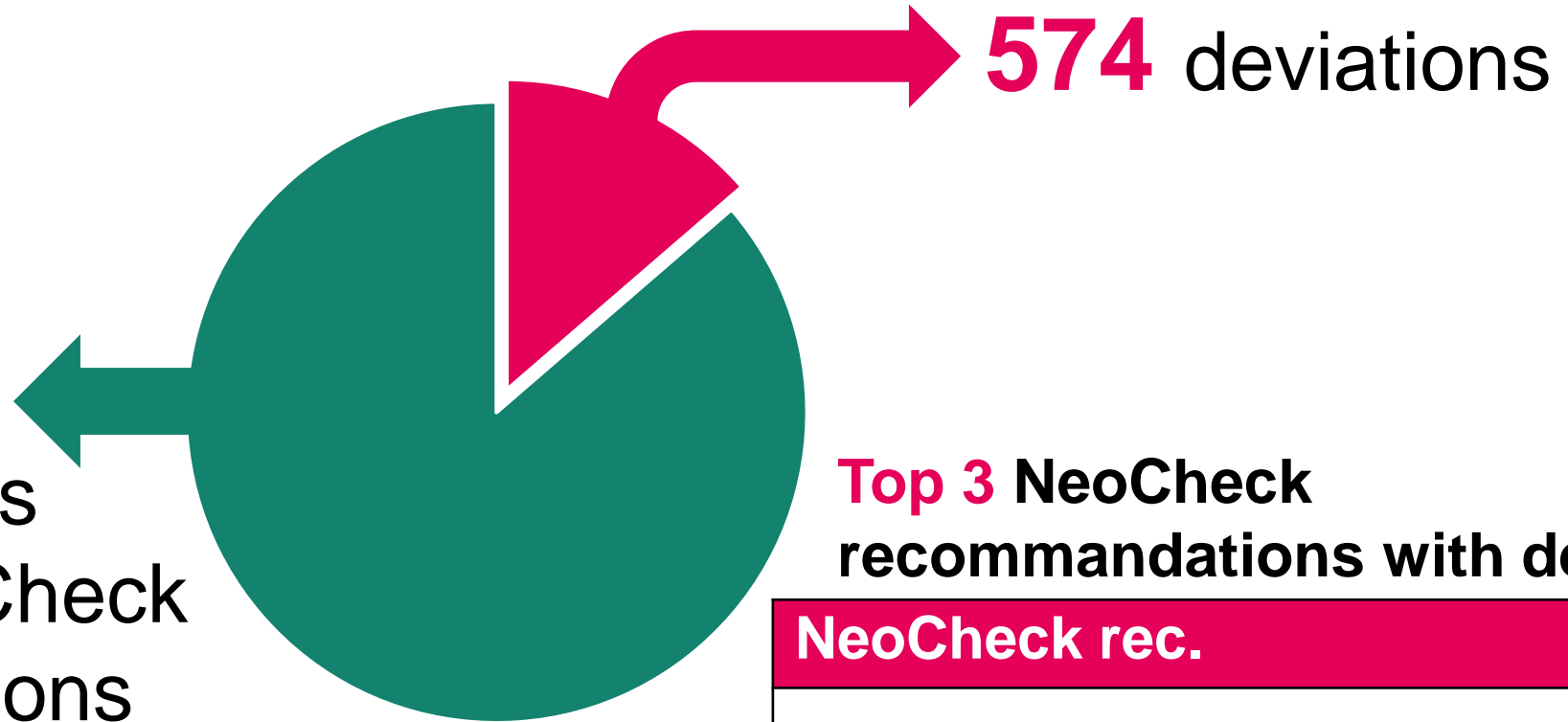
Twice weekly prescription review by a pharmacist



409 patient records analyzed of **95** patients

Global adherence

86% (3628)
of prescriptions
followed NeoCheck
recommendations

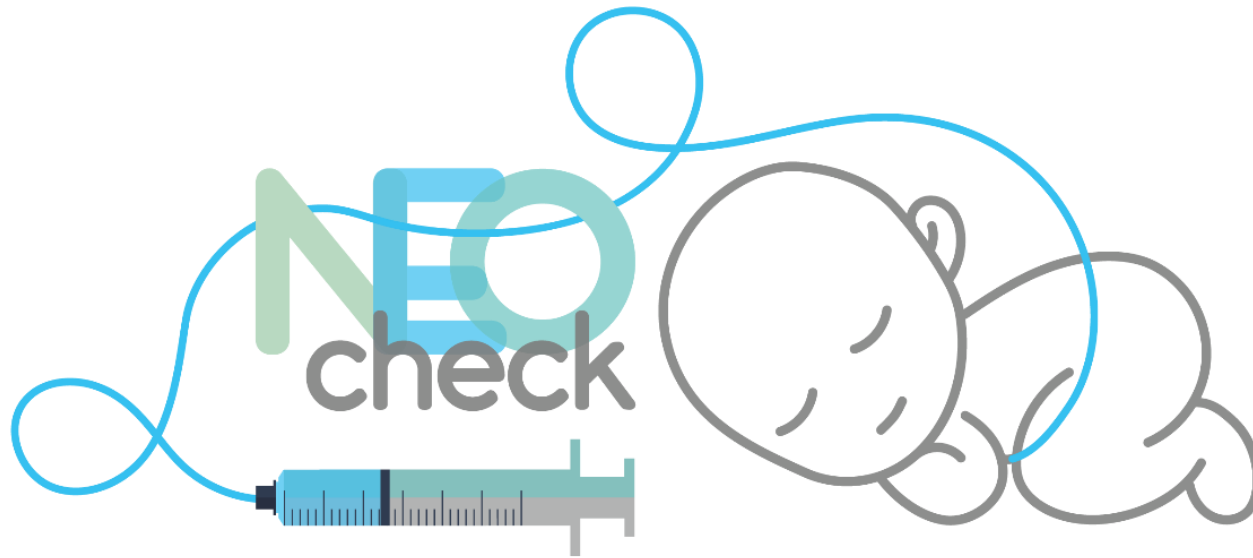


Top 3 NeoCheck recommendations with deviations

NeoCheck rec.	Dev.
Do not use routinely erythropoietin .	130
Start probiotics in preterm neonates at high risk of developing NEC → 36w PMA	113
Start iron supplement in preterm infants once full oral feeds have been achieved.	107

Global adherence

NeoCheck recommendation	Dev.	Proposed CQI initiative
Start iron supplementation once full feed have been achieved	107	Change in the choice of the milk fortification product
Avoid nephrotoxics	28	Bundle of measure to reduce exposure to nephrotoxics
Vitamine K prophylaxis at 4h, 4 days and 4 weeks of life	11	Informatic alert to the pharmacist
Administer vaccins at 60, 90 and 120 days of life	4	Informatic alert to the pharmacist
Reassess empiric antibiotics at 48h	3	Informatic alert to the pharmacist
Ajust treatments in case of acute kidney injury	1	Bundle of measure to reduce exposure to nephrotoxics



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