

# We developed a tool to optimize drug use in neonatology

## The NeoCheck Project: Development of a Prescription-screening Tool Specific to Neonatology

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### Potential uses of the tool:

  
Optimization of prescriptions

  
Young physicians and pharmacists training

  
Basis for developing institutional guidelines

### Literature review

**1375** **1375 recommendations** on neonatal pharmacotherapy were identified by a large literature review. Main sources: AAP, CPS, ESN, NICE, Cochrane Neo.

**328** Recommendations on same topics were **gathered and merged**.

**228** Recommendations were **presented to an expert** during interviews to eliminate the uncorrect, irrelevant and unuseful ones

**158** **Selection process** by the steering group to keep only the most relevant topics and reduce the number of recommendations.

### 2020: prospective study on the impact of NeoCheck

Start	<b>Start vitamin D supplementation from the first days of life in all neonates.</b>
	Recommended dose is 400 IU once daily during the first year of life and 600 IU once daily during the two next years.
	<b>Grade of recommendations: National Guidelines</b>

*L'Allemand D, Neuhaus TJ, Janner M, et al. Recommendations de l' Office fédéral de la santé publique concernant l' apport en vitamine D en Suisse – quelle signification pour le pédiatre? Paediatrica. 2012;23(4):22-24.*

Exemple of a NeoCheck recommendation

### 2-rounds Delphi Validation Method

- Online questionnaire answered by 23 swiss experts to assess their personal level of agreement\* with each recommendation:

**Round 1** Validation rule: >65% of agreement

158 → 145 → 141 recommendations

**Round 2** Validation rule: >75% of agreement

\*What is your level of **personal agreement** with the recommendation?

1. Totally agree     2. Slightly agree     3. Nor agree or disagree     4. Slightly disagree     5. Totally disagree
- = agreement**

### NeoCheck chapters

Basic management	Nephrology
Cardiology	Neurology
Endocrinology	Pain, sedation & neonatal abstinence syndrome
Gastroenterology	Pharmacology
Hematology	Pneumology
Infectiology	

### Experts characteristics

<b>Profession</b>	
Neonatologists (MD with <i>Schwerpunkt Neonatologie</i> )	22
Pharmacist	1
<b>Years of practice</b>	
>10 years	15
5-10 years	4
1-5 years	4

