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

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

Recommendations on same topics were gathered and merged.

Recommendations were presented to an expert during interviews to eliminate the incorrect, unrelevant and useless ones.

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

Example of a NeoCheck recommendation

Optimal vitamin D supplementation from the first days of life in all neonates.

Recommended dose is 400 IU once daily during the first year of life and 600 IU once daily during the two next years.

Grade of recommendations: National Guidelines


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

Round 2: Validation rule: >75% of agreement

141 recommendations

Experts characteristics

- Neonatologists (MD with Schwerepunkt Neonatologie) 22
- Pharmacist 1

Years of practice
- >10 years: 15
- 5-10 years: 4
- 1-5 years: 4

Number of experts by center