

## IV fluids in children

### Intravenous fluid therapy in children and young people in hospital

*Appendix D*

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Health and Care Excellence*



**Disclaimer**

Healthcare professionals are expected to take NICE clinical guidelines fully into account when exercising their clinical judgement. However, the guidance does not override the responsibility of healthcare professionals to make decisions appropriate to the circumstances of each patient, in consultation with the patient and/or their guardian or carer.

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# Contents

Appendix D: Clinical article selection .....	5
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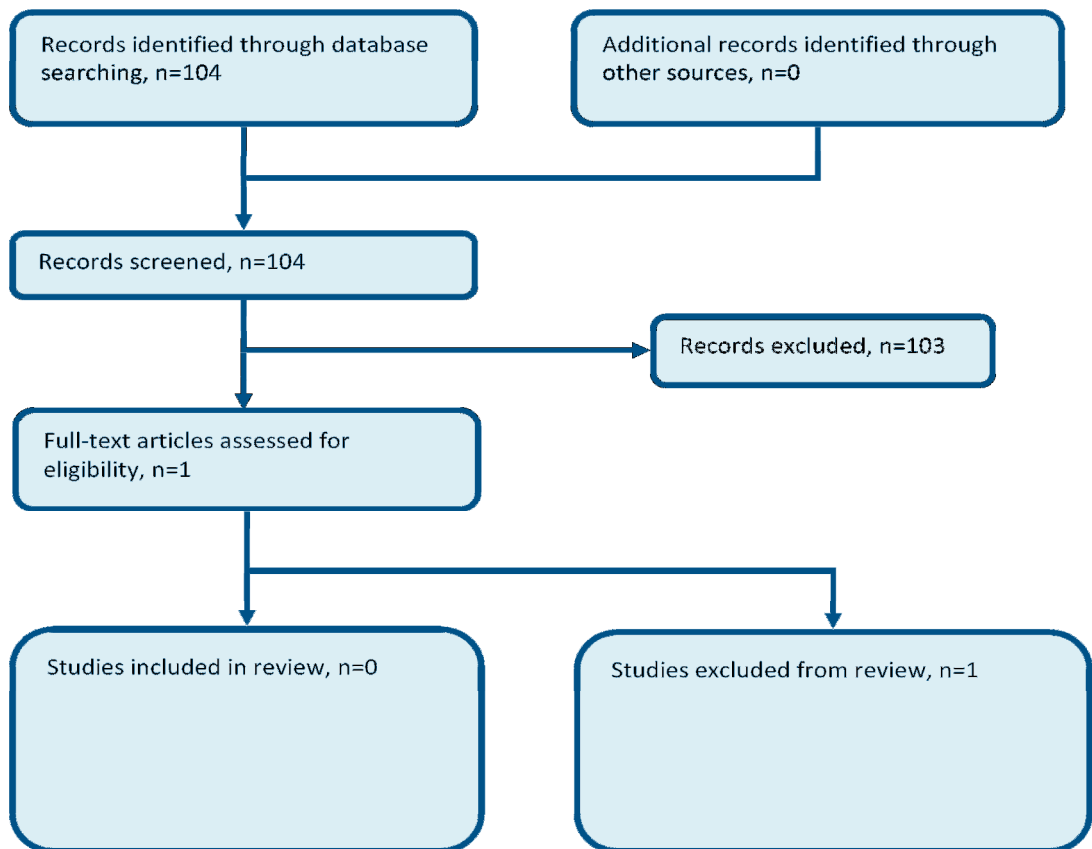
## Appendix D: Clinical article selection

### D.1 Assessment and monitoring

#### D.1.1 Methods of assessing IV fluid requirements

##### D.1.1.1 Body weight versus body surface area

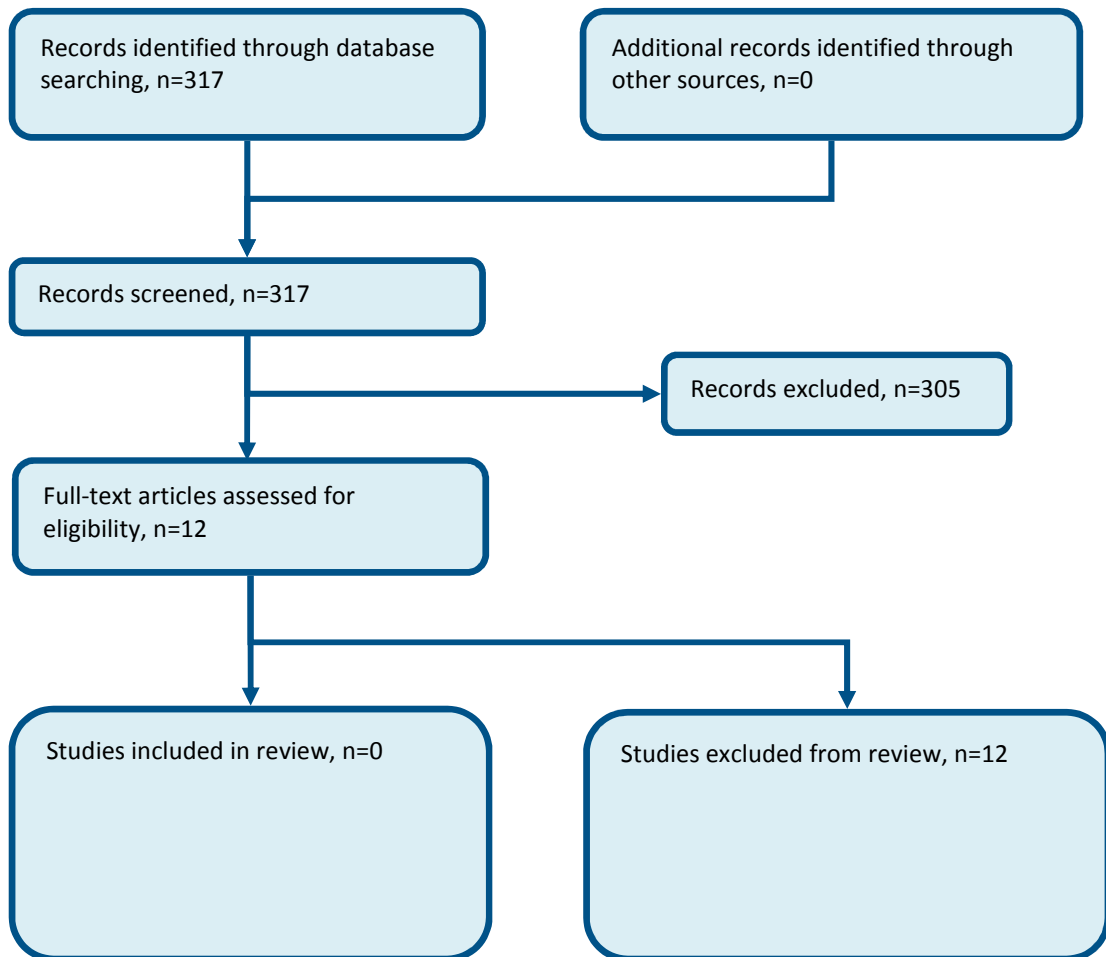
**Figure 1: Flow chart of clinical article selection for the review of: How effective is assessing body weight compared with body surface area for predicting IV fluid requirements in children?**



## D.1.2 Methods of calculating IV fluid requirements

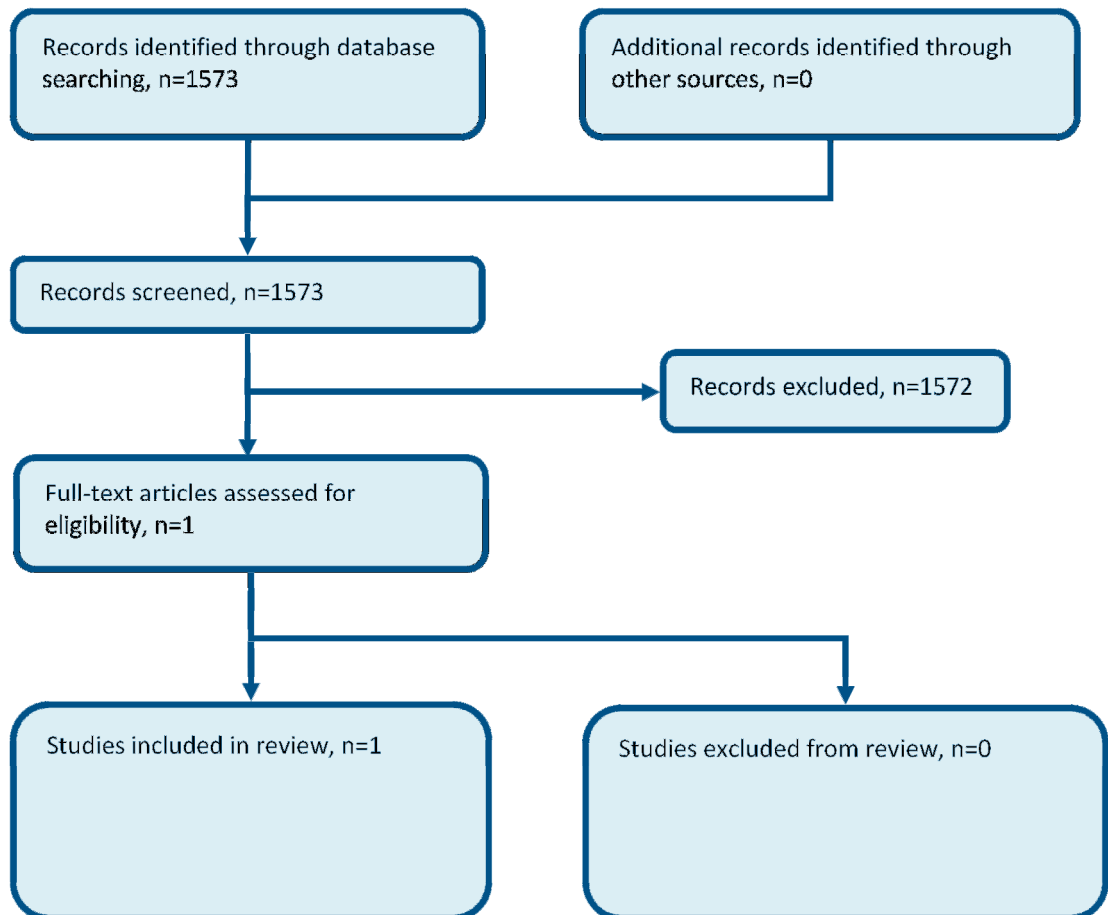
### D.1.2.1 Measurement and documentation

**Figure 2: Flow chart of clinical article selection for the review of: What are the key components to be measured and documented on an IV fluid balance and/or prescription chart to ensure appropriate prescribing of IV fluids?**



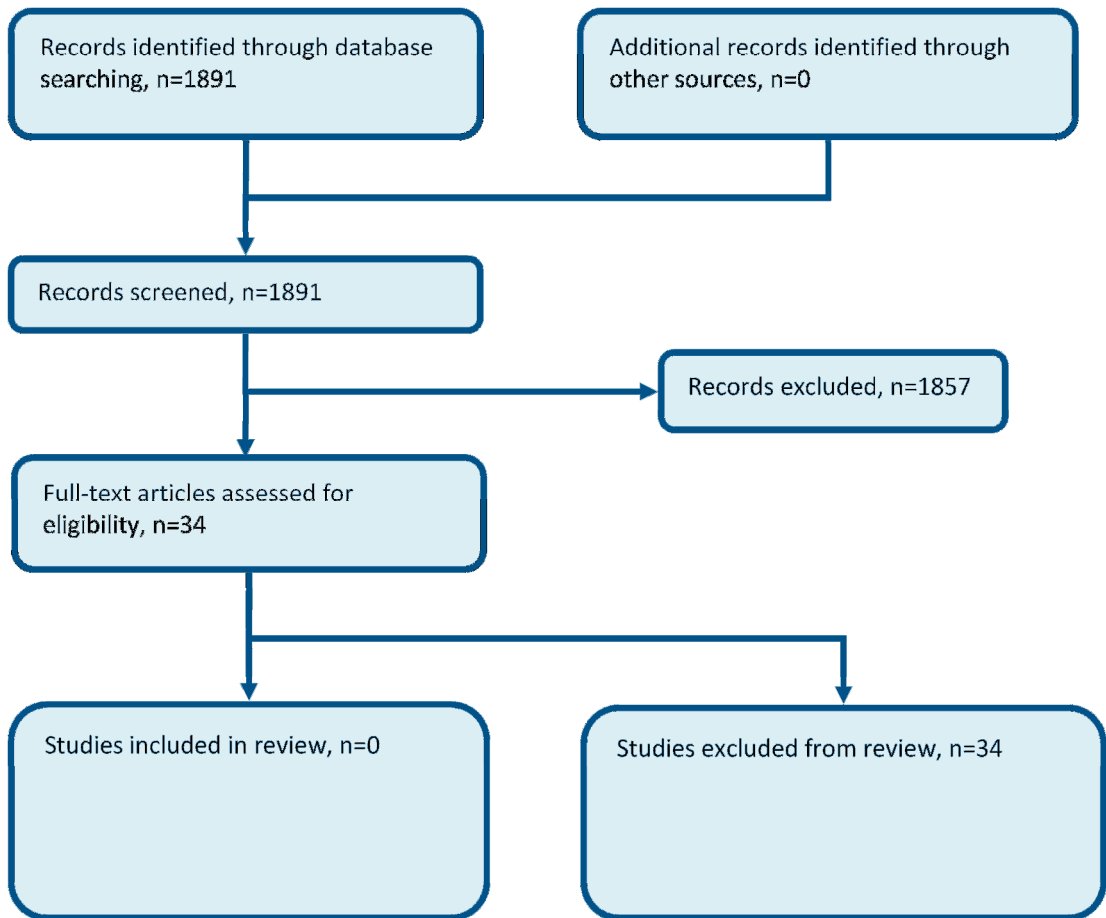
### D.1.2.2 Laboratory-based methods versus point-of-care testing

**Figure 3: Flow chart of clinical article selection for the review of: What is the clinical- and cost-effectiveness of laboratory-based methods versus point-of-care testing for assessing electrolyte estimations in children?**



**D.1.2.3 Assessing dehydration and hypovolaemia**

**Figure 4: Flow chart of clinical article selection for the review of: What are the most clinically- and cost-effective methods for assessing dehydration and hypovolaemia?**

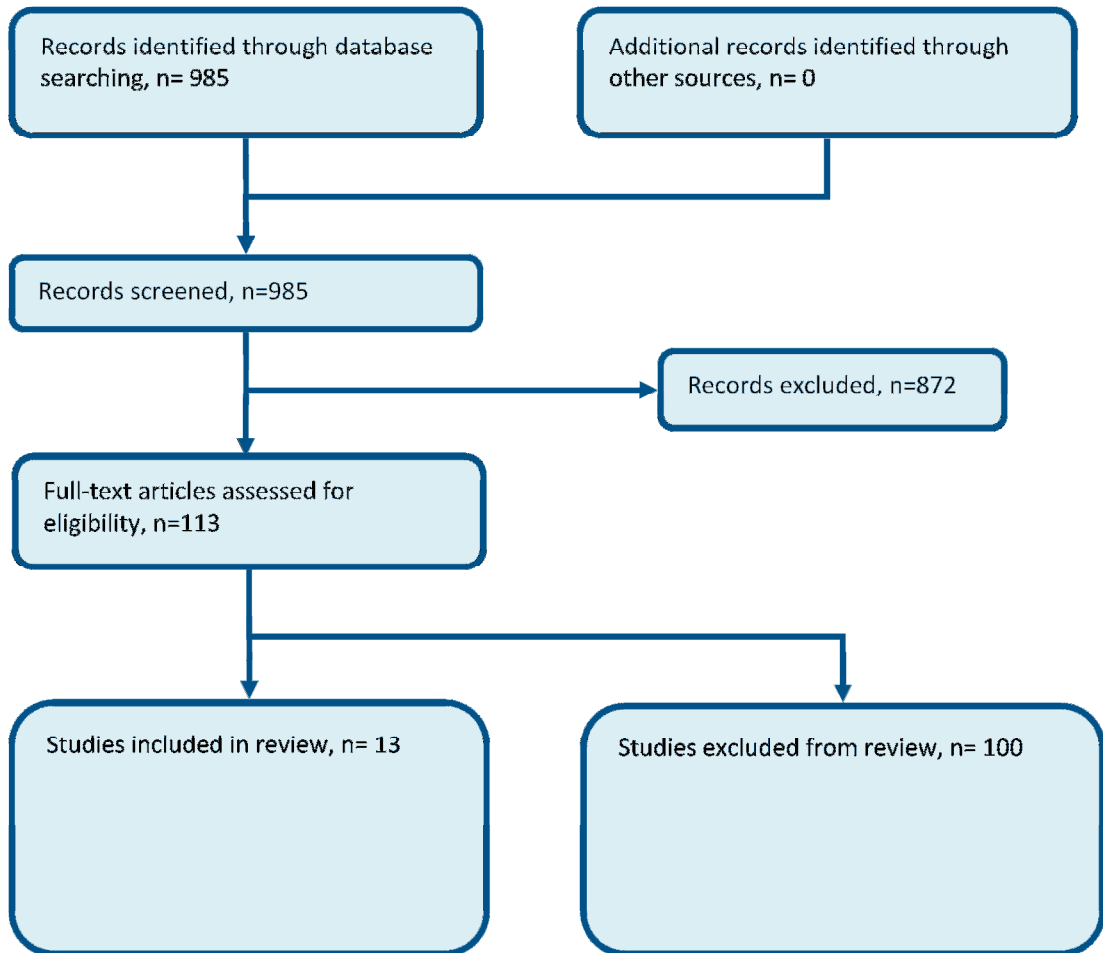




## D.2 IV fluid therapy for fluid resuscitation

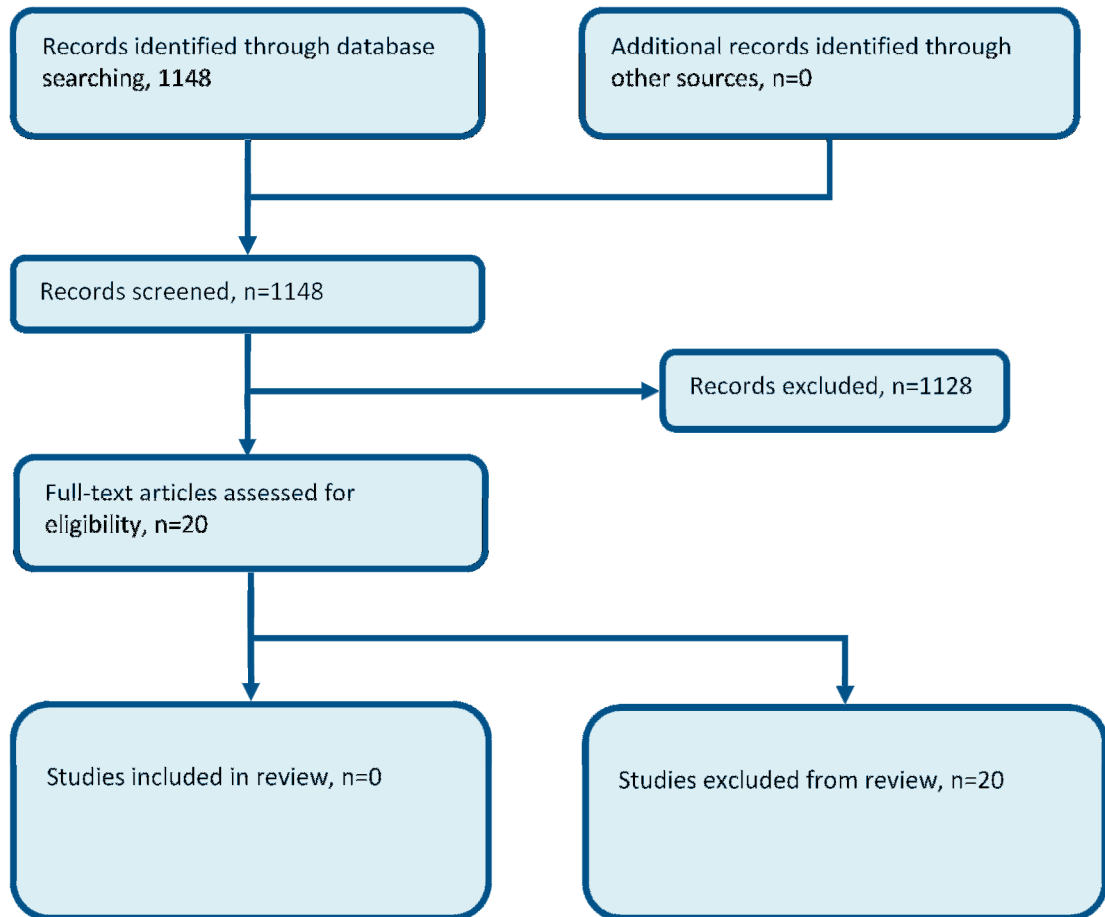
### D.2.1 Fluid type for fluid resuscitation

**Figure 5: Flow chart of clinical article selection for the review of: What is the most clinically- and cost-effective fluid type for fluid resuscitation in children?**



### D.2.2 Volume and rate of administration for fluid resuscitation

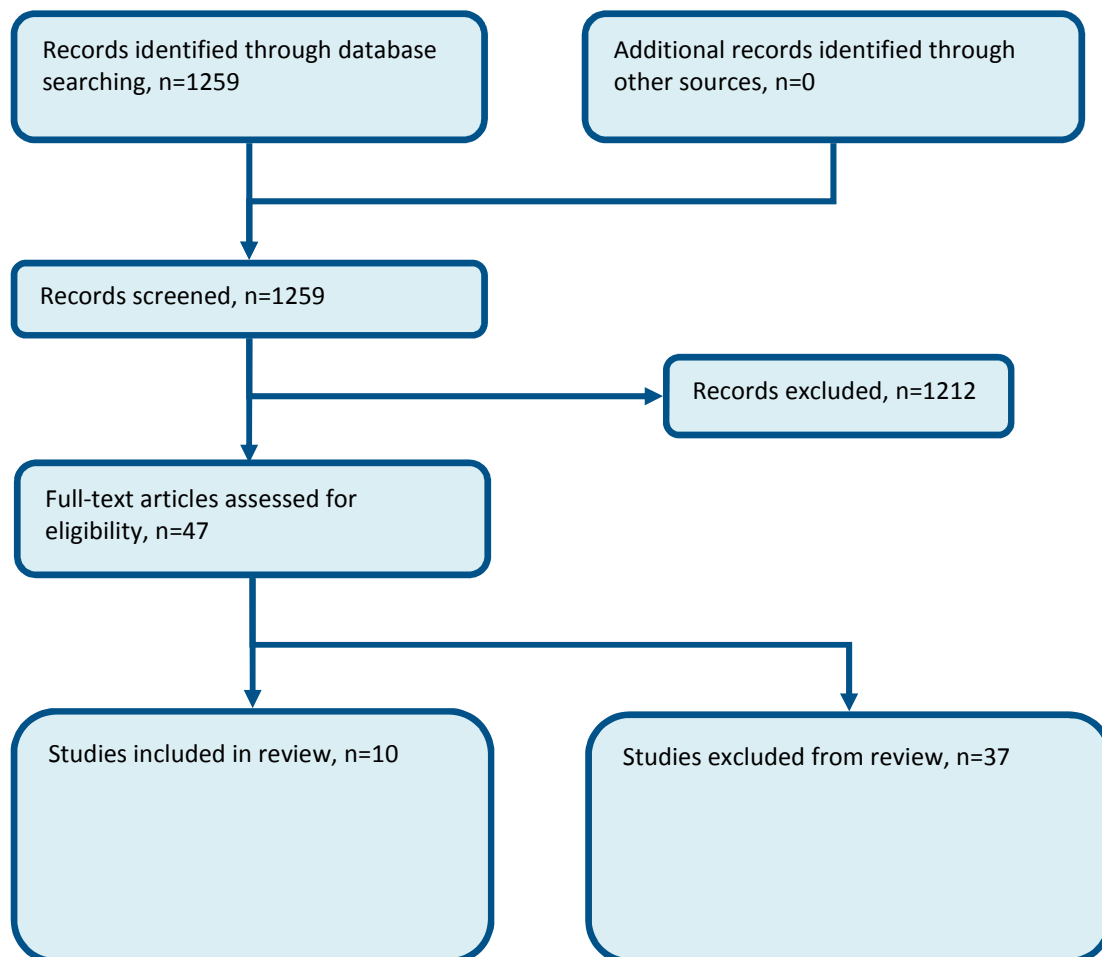
**Figure 6: Flow chart of clinical article selection for the review of: What is the most clinically- and cost-effective volume and rate of administration for IV fluid resuscitation?**



## D.3 IV fluid therapy for routine maintenance

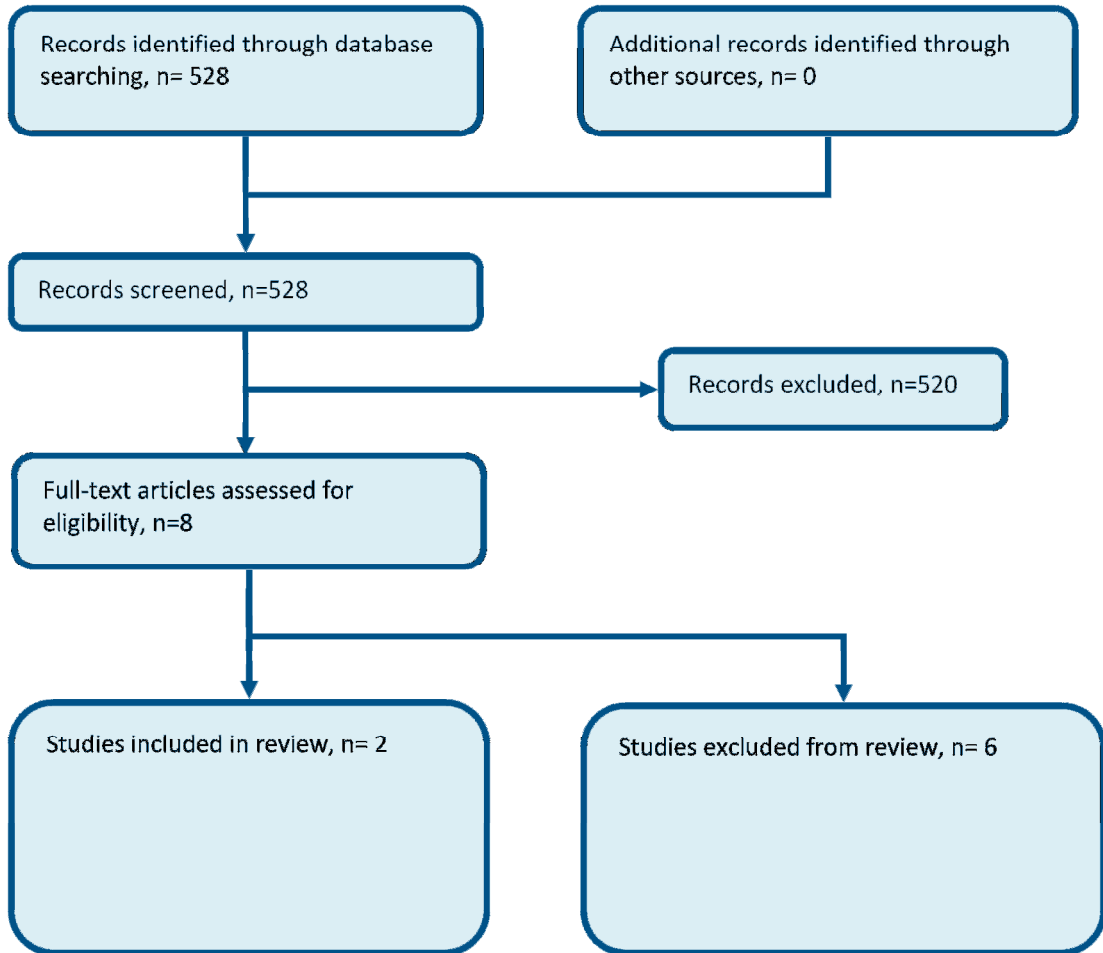
### D.3.1 Fluid type for routine maintenance

**Figure 7: Flow chart of clinical article selection for the review of: What is the most clinically- and cost-effective fluid type for IV fluid maintenance in children?**



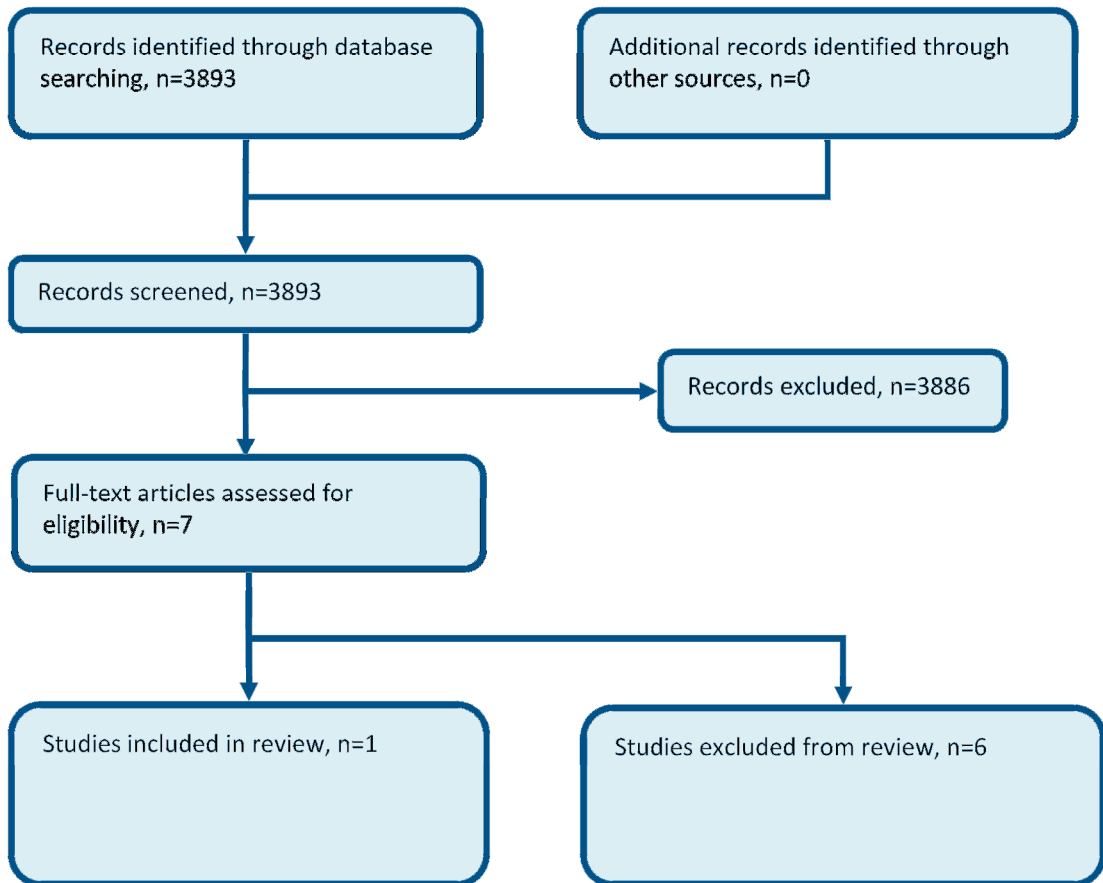
### D.3.2 Rate of administration for routine maintenance

**Figure 8: Flow chart of clinical article selection for the review of: What is the most clinically- and cost-effective rate of administration of IV fluids for routine maintenance?**



## D.4 IV fluid therapy for replacement and redistribution

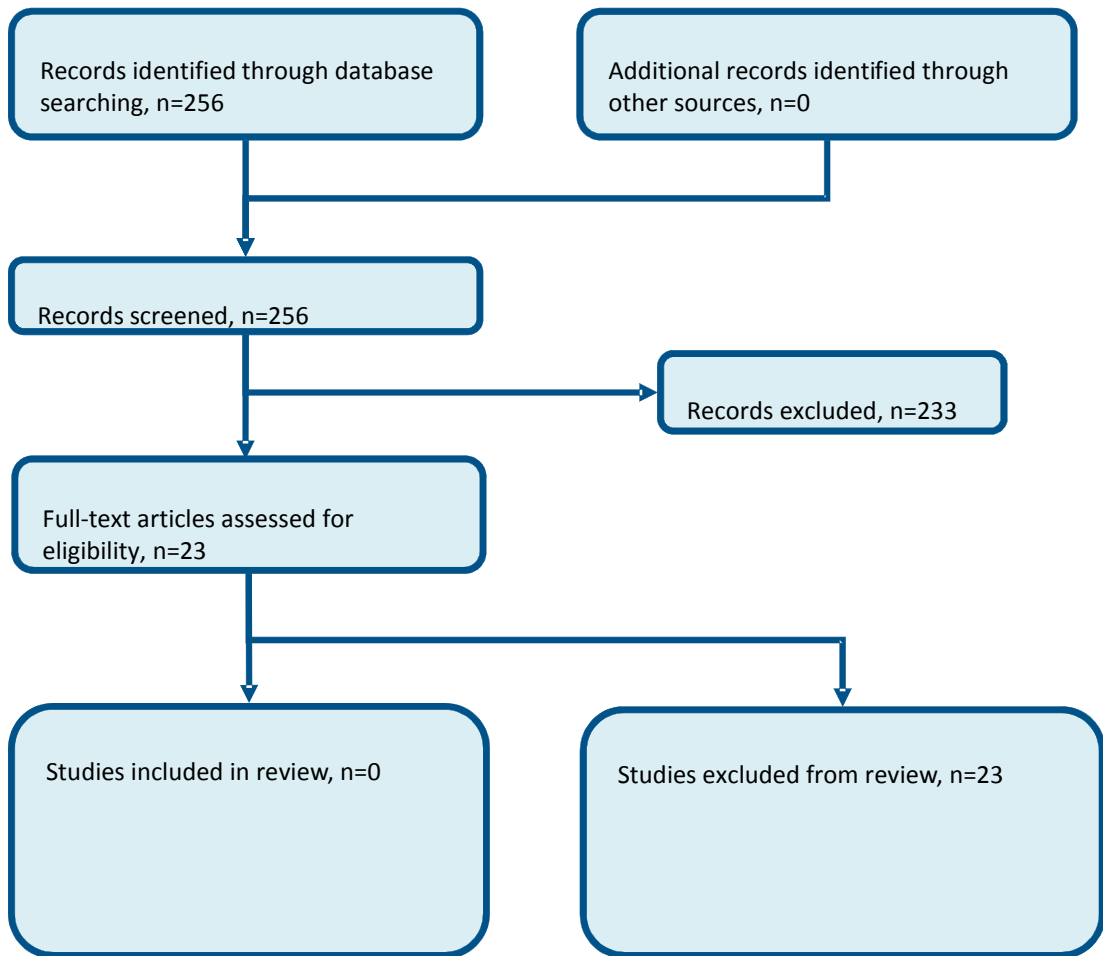
**Figure 9: Flow chart of clinical article selection for the review of: What fluid types are the most clinically- and cost-effective to address abnormal deficits or excesses, or to replace abnormal losses?**



## D.5 Managing hypernatraemia and hyponatraemia developing during IV fluid administration

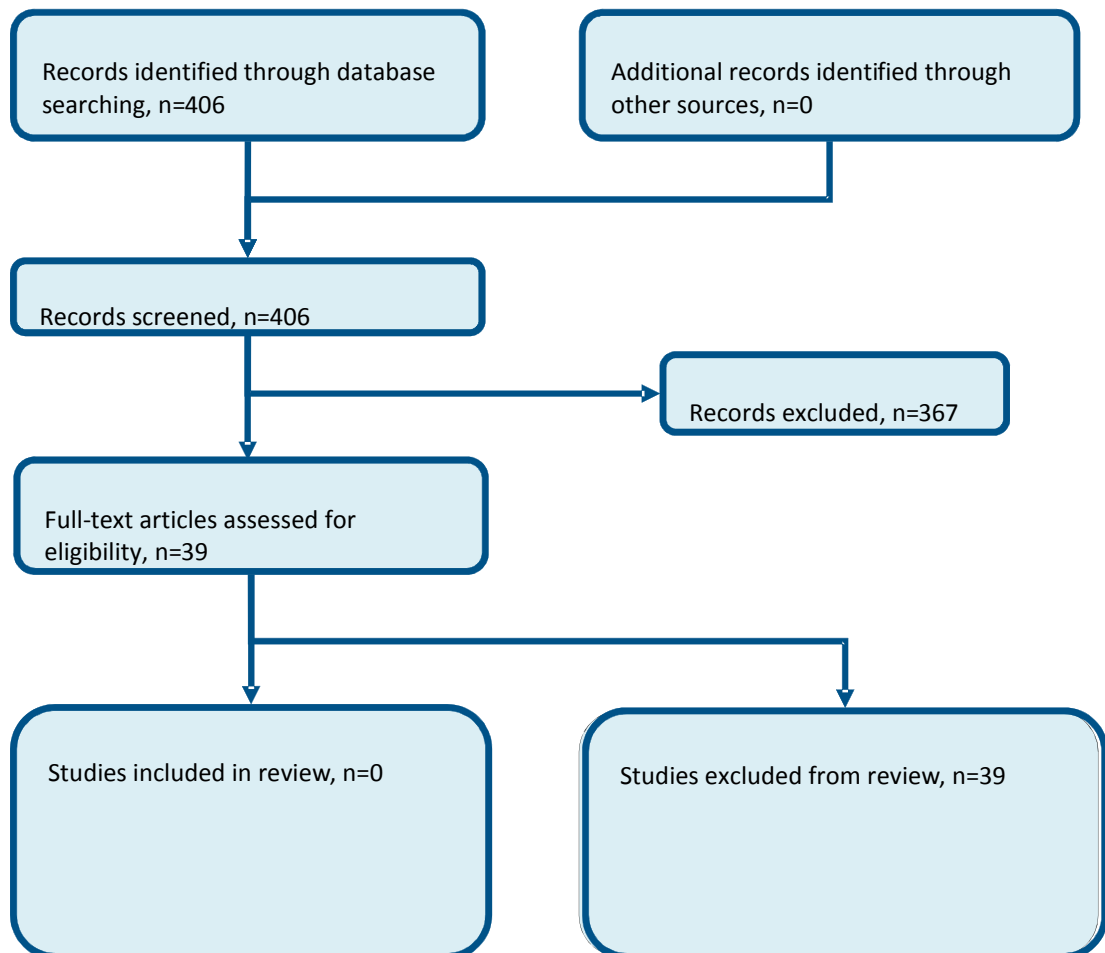
### D.5.1 Management of hypernatraemia

Figure 10: Flow chart of clinical article selection for the review of: What are the most clinically- and cost-effective methods to address hypernatraemia developing during IV fluid administration?



## D.5.2 Management of hyponatraemia

**Figure 11: Flow diagram of clinical article selection for the review of: What are the most clinically- and cost-effective methods to address hyponatraemia developing during IV fluid administration?**



## D.6 Training and education of healthcare professionals for management of IV fluid therapy

**Figure 12: Flow chart of clinical article selection for the review of: What skills are needed for the adequate training and education of healthcare professionals involved in prescribing and administering IV fluids?**

