

**Mar 1981**

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**Bibliographic Reference** Mar TJ; Traisman HS; Traisman ES; Typlin B; Ban S; Juvenile ketoacidosis. The use of sodium bicarbonate in the treatment of diabetic children.; The Journal of the Kansas Medical Society; 1981; vol. 82 (no. 6)

**Study details**

<b>Study type</b>	<b>Retrospective cohort study</b>
Study location	USA
Study setting	Hospital setting
Study dates	1950 to 1973
Duration of follow-up	During treatment
Sources of funding	Not reported
Inclusion criteria	Children with diabetes with DKA with at least one episode of DKA
Exclusion criteria	Not reported
Sample size	131
Split between study groups	Study included 5 arms 1. Sodium bicarbonate or sodium bicarbonate and saline 2. Lactate Ringers or Lactate ringers with saline 3. Saline 4. Sodium bicarbonate and saline and Lactate ringers or sodium bicarbonate and lactate ringers 5. Other Arms 2 and 4 were included in the review.
Loss to follow-up	Not reported

<b>Study type</b>	<b>Retrospective cohort study</b>
Condition specific characteristics	No definition provided. Definition of DKA not provided
Interventions	Sodium bicarbonate and saline and lactate Ringers or sodium bicarbonate and Lactate Ringers No information about DKA protocol provided. Lactate Ringers or Lactate Ringers with saline No information about DKA protocol provided.
Outcome measures	Length of stay (days) Duration of acidosis (hours)

### Study arms

Sodium bicarbonate and saline and lactate Ringers or sodium bicarbonate and Lactate Ringers (N = 8)

Iv solution with sodium bicarbonate

Lactate Ringers or Lactate Ringers with saline (N = 41)

No sodium bicarbonate

### ROBINS-I Tool

Section	Question	Answer
1. Bias due to confounding	Risk of bias judgement for confounding	Moderate (Appropriate analysis to control confounding not conducted.) )
2. Bias in selection of participants into the study	Risk of bias judgement for selection of participants into the study	Moderate (Adjustment techniques were not used to correct the presence of selection bias)
3. Bias in classification of interventions	Risk of bias judgement for classification of interventions	Moderate (Adjustment techniques were not used to correct the presence of selection bias)
4. Bias due to deviations from intended interventions	Risk of bias judgement for deviations from intended interventions	Moderate (DKA protocols followed not defined.))
5. Bias due to missing data	Risk of bias judgement for missing data	Low

<b>ROBINS-I Tool</b>		
6. Bias in measurement of outcomes	Risk of bias judgement for measurement of outcomes	Low
7. Bias in selection of the reported result	Risk of bias judgement for selection of the reported result	Low
Overall bias	Risk of bias judgement	Serious (Appropriate analysis to control confounding not conducted. Adjustment techniques were not used to correct the presence of selection bias, DKA protocols followed not defined.)
	Directness	Partially Applicable (Definition of DKA not provided, Outcome 'duration of acidosis' not specified in the review protocol.)