Table 2 Continued

Author, date, and country	Patient group	Study type (level of evidence)	Outcomes	Key results	Study weaknesses
Levitan RM *et al*, 2004, USA	658 trauma patients	Prospective observational study	Number of laryngoscopy attempts: 1 2 3 Success Cricothyrotomy (No failed intubations in any groups)	 EM = 394/456 (86.4%) A = 174/194 (89.7%) EM = 50 (11%) A = 13 (6.7%) EM = 12 (2.6%) A = 7 (3.6%) EM = 454/456 (99.6%) A = 194/194 (100%) EM = 2/456 (0.4%) A = 0 NA 34.2% M 49.3% (p = 0.23)	Observational study; no power study; only major complications; self reported; More numbers in EM groups
Bushra JS *et al*, 2004, USA	673 trauma patients emergency department, 467 anaesthesia supervised intubations (A), 206 emergency medicine supervised (EM)	Prospective observational study	Successful intubations within 2 attempts Intubation failure	A = 442/467 (94.6%) EM = 196 (95.1%), odds ratio 1.109 A = 16/467 (3.4%) EM = 4 (1.9%), odds ratio 0.558	Observational study; no power study; no mention of complications; different numbers between groups (EM performed most of the intubations and reported EM intubated in 81% of anaesthesia supervised groups and in 98% of EM supervised groups)
Graham CA *et al*, 2004, UK	396 trauma patients in emergency department	Prospective observational study	Complications (oesophageal intubation, endobronchial intubation, aspiration, vomit, critical desaturation, cardiac arrest, hypotensive episode)	EP 11/110 (10.0%) A = 13/123 (10.6%) p = 1.0	Observational study; no power study
Reid C *et al*, 2004, UK	208 RSIs outside theatre, 51 by anaesthetists (A), 82 by non-anaesthetists (NA), 75 by non-anaesthetists supervised by anaesthetists (M)	Prospective observational study	Complications (hypotension, arrhythmias, and hypoxia) (No failed intubations in any groups)	A 33.3% NA 34.2% M 49.3% (p = 0.23)	Observational study; no power study; no record of duration of hypoxia/hypotension; no comparison of seniority of operator; other complications not included. (When compared with conditions and expected complication rates, no statistical differences between groups)

EM, emergency medicine (physician); A, anaesthetist.

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Absorbable sutures in paediatric lacerations

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Abstract

A short cut review was carried out to establish whether absorbable sutures offered any benefits over non-absorbable sutures in the treatment of childhood facial lacerations. A total of 31 papers were found, of which one presented the best evidence to answer the clinical question. The author, date and country of publication, patient group studied, study type, relevant outcomes, results, and study weaknesses of this best paper are tabulated. We conclude that absorbable sutures appear to be as good as and show a trend towards benefit in the treatment of paediatric lacerations.

Three part question

In [paediatric patients with traumatic lacerations], does [the use of absorbable sutures compared with non-absorbable sutures] [increase the rates of complications and long term cosmesis]?

Clinical scenario

A 10 year old boy presents after a suffering a laceration on his lower leg from a snow skiing accident. It cannot be closed using glue. You would like to save the child the pain and discomfort of suture removal. You wonder if absorbable sutures would increase the rate of complications or scarring.

Search strategy

Medline 1966–November 2005 using the OVID interface; *Cochrane Library*, 2005: [(exp lacerations or laceration.mp) AND (exp sutures/or suture.mp) AND (exp treatment outcome/ OR exp cosmetic techniques/ OR exp wound infection/)]. LIMIT to human AND English AND ''all child (0 to 18 years)''. *Cochrane Database of Systematic Reviews*: [Suture and absorbable]

Search outcome

Medline: 31 papers found of which 30 were irrelevant or of insufficient quality (see table 3 for the single best paper). Cochrane: 23 papers found, no new additional references found.

Table 3

Author, date, and country	Patient group	Study type (level of evidence)	Outcomes	Key results	Study weakness
Karounis H *et al*, 2004, USA	Paediatric patients with traumatic lacerations	Prospective, randomised, controlled trial	Short term cosmesis (as measured with percentage of patients with optimal wound score on 6-point scale)	Better for absorbable but not statistically significant (63% *v* 49%); RR 0.73, 95% CI 0.45 to 1.17	34% of patients were lost to long term follow up.
			Wound dehiscence	11% for non-absorbable *v* 2% for absorbable, p=0.07	
			Cosmesis at 4 months (measured by plastic surgeon on 100 mm VAS)	79 mm for absorbable *v* 66 for non-absorbable	
			Cosmesis at 4 months as measured by optimal score on 6-point scale	36% for absorbable *v* 28% for non absorbable; RR 0.88, 95% CI 0.62 to 1.26	
			Surgical scar revision recommendation	3 patients were recommended for revision: 2 were in the absorbable group; all declined revision	

Comment(s)

The use of absorbable sutures in children has the benefit of avoiding the emotional and physical trauma and cost of suture removal. The only prospective randomised controlled trial showed no difference between absorbable sutures and non-absorbable sutures in the rate of complications as well as cosmesis. However, too many patients were lost to long term follow up.

► CLINICAL BOTTOM LINE

Absorbable sutures appear to be as good as, and show a trend towards benefit, in paediatric laceration.

Karounis H, Gouin S, Eisman H, *et al.* A randomized, controlled trial comparing long-term cosmetic outcomes of traumatic pediatric lacerations repaired with absorbable plain gut versus nonabsorbable nylon sutures *Acad Emerg Med* 2004;11:730–5.

Smectite for acute diarrhoea in children

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doi: 10.1136/emj.2005.032623

Abstract

A short cut review was carried out to establish whether smectite was a useful therapy in acute diarrhoea. A total of 21 papers were found of which five presented the best evidence to answer the clinical question. The author, date and country of publication, patient group studied, study type, relevant outcomes, results, and study weaknesses of these best papers are tabulated. The clinical bottom line is that oral smectite appears to be effective at shortening the duration of the diarrhoea in children with acute diarrhoea rehydrated with oral rehydration solution.

Three part question

In [children with acute diarrhoea] is [the use of smectite with oral rehydration solution better than oral rehydration solution alone] at [shortening the duration of diarrhoea]?

Clinical scenario

A 12 month old boy with acute diarrhoea is brought to the emergency department by his parents. He tolerates oral rehydration solution well but his parents still worry very much about his frequent loose stools. You wonder if the use of smectite would provide any additional benefit.

Search strategy

Medline 1966–August 2005, Embase 1966–August 2005: {(dioctahedral$.mp OR smect$.mp) AND (exp diarrhea OR exp gastroenteritis OR diarrh$.mp)} LIMIT to human AND English. Embase: {(diactahedral* OR smect*) AND ('diarrhea'/exp OR 'gastroenteritis'/exp OR diarrh*)} LIMIT to human AND English; *Cochrane Library*: [smectite]

Table 4

Author, date, and country	Patient group	Study type (level of evidence)	Outcomes	Key results	Study weaknesses
Vivatvakin B *et al*, 1992, Thailand	62 patients (age 1–24 months) with acute diarrhoea randomised to DS+ORS or ORS	Prospective randomised controlled trial	Duration of diarrhoea (hours)	Significantly shorter duration of diarrhoea in the DS+ORS group (43.3 (25.1) *v* 84.7 (48.5), p=0.005)	Small number of patients; unclear randomisation; no blinding
Madkour AA *et al*, 1993, Egypt	90 boys (age 3–24 months) with acute diarrhoea randomised to DS+ORS or ORS	Prospective randomised controlled trial	Duration of diarrhoea (hours)	Significantly shorter duration of diarrhoea in the DS+ORS group (54.1 (2.35) *v* 72.9 (1.98), p<0.001)	Small number of patients
			Total number of diarrhoeal stools	Significant smaller number of total diarrhoeal stools in the DS+ORS group (11.3 (0.48) *v* 13.8 (0.45), p<0.001)	
Lexomboon U *et al*, 1994, Thailand	66 patients (age 1–24 months) with acute diarrhoea randomised to DS+ORS or ORS	Prospective randomised controlled trial	Cure rate at 72 hours	Significantly higher cure rate in the DS+ORS group at 72 hours after the treatment (71% *v* 34%, p<0.01)	Small number of patients; unclear randomisation; no blinding
Guarino A *et al*, 2001, Italy	804 patients (age 3 months–5 years) with acute diarrhoea randomised to DS+ORS or ORS	Prospective randomised controlled trial	Duration of diarrhoea (hours)	Significantly shorter duration of diarrhoea in the DS+ORS group (96 (21) *v* 119 (23), p<0.001)	Incomparable baseline data; no intention to treat analysis; no blinding
Narkeviciute I *et al*, 2002, Lithuania	54 patients (age 6–48 months) with acute diarrhoea randomised to DS+ORS or ORS	Prospective randomised controlled trial	Duration of diarrhoea (hours)	Significantly shorter duration of diarrhoea in the DS+ORS group (42.3 (24.7) *v* 61.8 (33.9), p=0.019)	Small number of patients; randomisation by birthday; no blinding

DS, dioctahedral smectite; ORS, oral rehydration solution.