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(605 practitioners from 26 trials; RD 1.3%; IQR, 1.3%–29%). No difference was noted in patient outcomes between groups with dichotomous measures (RD 0.4%; IQR, −1.3% to 1.6%), but there was an improvement with continuous measures (RD 17%; IQR, 1.5%–17%). The authors noted that audit and feedback may be most effective when (1) providers are not performing well prior to intervention, (2) the person responsible for the audit and feedback is a supervisor or colleague, (3) the feedback is provided more than once, (4) it is given both verbally and in writing, and (5) it includes clear targets and actions.¹

A systematic review of 10 RCTs (N=23,855) evaluated the effect of provider feedback to general practitioners on process and outcome measures of the quality of care for people with type 2 diabetes mellitus.² Feedback was the sole quality improvement (QI) intervention in 6 of the 10 trials. The follow-up period varied from 12 months to 6 years. Meta-analysis was unable to be performed due to heterogeneity. Nine of the 10 studies showed a total of 23 statistically significant positive changes and 51 nonsignificant changes. However, more studies were able to show improvements in process outcomes (ie, timely HbA1c measurements), and few studies were able to demonstrate improvements in patient outcomes. Two of the 10 studies showed a statistically significant lowering of HbA1c (N=4,138; OR 1.2; 95% CI, 1.0–1.3; and N=944; mean difference [MD] −0.056%; 95% CI, −0.081 to −0.031) and blood pressure (systolic pressure: N=944; MD −5 mmHg; 95% CI, −7.6 to −2.4; diastolic pressure: N=1,034; MD −2.3 mmHg; 95% CI, −3.8 to −0.8) in the feedback groups when compared with usual care without structured feedback. No study lasting less than 18 months duration was able to show significant patient outcomes.²

A population-based, cluster RCT of 86 hospitals (N=15,997) evaluated the effectiveness of publically reported data on a set of process-of-care measures for acute myocardial infarction (MI) and congestive heart failure (CHF).³ Hospitals were randomized to receive either early or delayed (20 months later) feedback from a publically released report card. Data from the early feedback group were released both publicly to an estimated 12 million viewers and to providers via the web. Baseline and postintervention data were collected. No difference was noted in the primary outcome of compliance with 12 acute MI process-of-care measures between the early feedback group and the late feedback group (MD 1.5%; 95% CI, −2.2% to 5.1%) or 6 CHF care indicators (MD 0.6%; 95% CI, −4.5% to 5.7%). However, the mean 30-day acute MI rates were lower in the early feedback group (MD −2.5%; 95% CI, −0.1% to −4.9%). One-year mortality was also lower in patients with CHF and left ventricular dysfunction (MD −6.8%; 95% CI, −12% to −2%) with early feedback compared with delayed feedback.³

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What is the best way to eradicate the staph carrier state in a patient with recurrent staph skin infections?

Evidence-Based Answer

In patients who are nasal carriers, intranasal mupirocin effectively eradicates intranasal Staphylococcus aureus with a 90% success rate at 1 week (SOR: A, meta-analysis). The addition of bleach baths to nasal mupirocin promotes longer term eradication in patients with colonization beyond the nose (SOR: B, RCT).

Over the past decade, the incidence of staphylococcal skin and soft tissue infections (SSTIs) has increased, with colonization of S aureus being one of the main risk factors for the development of these SSTIs. A Cochrane review of 9 placebo-controlled RCTs with 3,396 patients evaluated the efficacy of mupirocin ointment for preventing S aureus infections in nasal carriers.¹ A statistically significant reduction in the rate of S aureus skin infection was associated with the use of intranasal mupirocin compared with placebo (RR 0.55; 95% CI 0.43–0.70).

Another systematic review assessed the most effective approach for eradicating intranasal methicillin-resistant S aureus (MRSA) carriage; this review included 23 trials, of which 12 evaluated topical antibiotics, 7 evaluated oral antibiotics, and 4 both.² Compared with placebo, intranasal mupirocin (treatment duration range of 3–14 days; application
frequency unclear) resulted in more successful eradication (negative nasal cultures) 1 week after treatment was completed (6 trials; N=626; RR 0.10; 95% CI, 0.05–0.14) and during follow-up periods ranging from 16 to 365 days (8 trials; N=902; RR 0.44; 95% CI, 0.39–0.50).

A recent RCT involving 300 patients with either intranasal or skin colonization compared the effectiveness of 4 different 5-day regimens for eradicating *S. aureus*: hygiene education alone (control group), BID intranasal mupirocin, mupirocin plus daily 4% chlorhexidine body washes, and mupirocin plus daily 15-minute soaks in dilute bleach baths (a quarter cup of 6% sodium hypochlorite in a bathtub). At 1 month, intranasal and skin *S. aureus* eradication was significantly better compared with placebo (38%) in the mupirocin group (56%; *P*=.03), the mupirocin + chlorhexidine group (55%; *P*=.05), and the mupirocin + bleach group (63%; *P*=.006). At 4 months, however, compared with the control group (48%) eradication rates for each of the above groups were 56% (*P*=.40), 54% (*P*=.51), and 71% (*P*=.02), respectively, with only the mupirocin + bleach group statically better than the control group.

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**Are oral steroids effective in reducing hearing loss and improving language development in children with otitis media with effusion?**

**Evidence-Based Answer**

Oral steroids do not reduce the risk of hearing loss in children with otitis media with effusion (OME) (SOR A, systematic review of RCTs). No data are available from RCTs regarding the effect of oral steroids on language development.

A Cochrane review evaluated the benefits and adverse effects of oral (9 RCTs; N=624) and nasal steroids (3 RCTs; N=321) for treatment of OME in children up to 15 years of age. OME was diagnosed in most trials by pneumatic otoscopy or tympanometry.

Of the trials using oral steroids, 6 used oral prednisolone/prednisone (1–2 mg/kg per day) for 7 to 14 days, 2 used oral dexamethasone (0.15 mg/kg in tapering doses for 2 weeks), and 1 used a single dose of betamethasone along with antibiotics (6 mg given on the 10th day of the antibiotic treatment). The duration of 7 of these trials was 6 weeks or less; 1 trial followed subjects for 2 months and another for 6 months.

Hearing loss, the primary outcome measure, was reported in 2 of the trials using oral steroids alone; however, only 1 of these 2 studies using oral dexamethasone dosed for 2 weeks (n=44) provided usable data. In this study, there was no significant improvement in hearing (at least 10 dB) with treatment (risk ratio [RR] 1.1; 95% CI, 0.8–1.5) compared with placebo at 6 weeks. One study (N=99) also compared the efficacy of prednisone 1 mg/kg per day tapered over 2 weeks in combination with amoxicillin to placebo plus amoxicillin given for 2 weeks. Hearing loss was measured at 2 months with no significant difference in outcome (RR 1.1; 95% CI, 0.73–1.4). Symptoms and language development (secondary outcome measures) were not evaluated in the trials of oral steroids.

The American Academy of Family Physicians, the American Academy of Pediatrics, and the American Academy of Otolaryngology-Head and Neck Surgery published an evidence-based guideline regarding the treatment of OME. They recommended against the use of antibiotics or corticosteroids because of a lack of long-term efficacy and against the use of antihistamine/decongestants because of ineffectiveness (Grade A recommendation for both statements, based on well-designed RCTs or diagnostic studies in populations similar to the guideline’s target population).

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