patients measuring within ±10% of the reference value and another 31.5% within ±10% to 20% of the reference value. The remaining 15.7% of patients were outside ±20% of the reference value.

In 2002, another study evaluated the accuracy for 159 hospital outpatient clinic patients and 263 general practice patients randomly selected from 65 general practice sites. Values were acquired by patients with their own machines and trained technicians using 2 different instruments versus 2 laboratory measurements. This study found that depending on the meter used, 19% to 58% of patients’ values fell outside ±10% of the laboratory values (TABLE). Additionally, 15% to 97% of the technician’s measurements were also outside ±10% of the laboratory values.

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Deepak Patel, MD
Flower Hospital Family Medicine Residency
Sylvania, Ohio

### TABLE

<table>
<thead>
<tr>
<th>Glucose meter</th>
<th>BG measurement taken by</th>
<th>n</th>
<th>Percentage of measurements that deviated from the laboratory method by &gt;10% (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glucometer Elite</td>
<td>Technician</td>
<td>94</td>
<td>27 (18–37)</td>
</tr>
<tr>
<td></td>
<td>Patient</td>
<td>95</td>
<td>48 (38–59)</td>
</tr>
<tr>
<td>MediSense</td>
<td>Technician</td>
<td>95</td>
<td>45 (35–56)</td>
</tr>
<tr>
<td></td>
<td>Patient</td>
<td>140</td>
<td>43 (35–52)</td>
</tr>
<tr>
<td>Accutrend</td>
<td>Technician</td>
<td>93</td>
<td>47 (37–58)</td>
</tr>
<tr>
<td></td>
<td>Patient</td>
<td>56</td>
<td>43 (30–57)</td>
</tr>
<tr>
<td>OneTouch</td>
<td>Technician</td>
<td>87</td>
<td>97 (90–99)</td>
</tr>
<tr>
<td></td>
<td>Patient</td>
<td>31</td>
<td>19 (7–38)</td>
</tr>
<tr>
<td>GlucoTouch</td>
<td>Technician</td>
<td>93</td>
<td>15 (9–24)</td>
</tr>
<tr>
<td></td>
<td>Patient</td>
<td>40</td>
<td>58 (41–73)</td>
</tr>
</tbody>
</table>

BG = blood glucose; CI = confidence interval.

### What treatments are safe and effective for vitiligo?

#### Evidence-Based Answer

Class III topical corticosteroids are effective for localized vitiligo in adults and children. Optimum treatment of generalized vitiligo is less clear. Topical steroids are effective, but their long-term use is limited by adverse effects. Oral methoxsalen, oral trioxsalen, and oral psoralen (all plus sunlight) are effective, but also limited by adverse effects. (SOR A, based on 2 meta-analyses). Tacrolimus is an effective alternative for children with localized vitiligo (SOR B, based on a single randomized controlled trial [RCT]), but concerns persist about its long-term safety.

For localized vitiligo, 2 meta-analyses have shown good evidence for class III steroid use. In 10 RCTs with 993 patients, class III topical corticosteroids were associated with significantly more repigmentation than placebo (odds ratio [OR] for >75% repigmentation 14.32; 95% confidence interval [CI], 2.45–83.72). Atrophy was reported in 2% of patients.

One RCT evaluated tacrolimus in children with localized vitiligo. Twenty children were treated twice daily for 2 months with clobetasol propionate 0.05% to 1 lesion and tacrolimus 0.1% to a similar lesion in a blinded fashion. Characteristics of pigment, time of response,
symptoms, telangiectasias, and atrophy were evaluated every 2 weeks. Eighteen (90%) of the 20 patients experienced some repigmentation. The mean percentage of repigmentation was 49.3% for clobetasol and 41.3% for tacrolimus (P=.005). Lesions treated with clobetasol showed telangiectasias and atrophy, whereas tacrolimus was found to be associated with mild itching and a burning sensation.\(^3\) Notably, FDA concerns about long-term safety have resulted in a “black box” warning about a potential carcinogenic effect and recommending against long-term use.\(^4\)

Two recent meta-analyses have evaluated treatments for generalized vitiligo. The most recent meta-analysis included 19 trials and 1,330 participants. Unfortunately, none of the trials had similar enough interventions to allow data pooling. Most were relatively small, of short duration, and did not adequately describe adverse effects. Most of the trials were placebo-controlled studies. In 1 of the few comparative RCTs, 50 children were randomly assigned to clobetasol propionate or topical PUVA sol.\(^5\) The trial was continued for 6 months. Overall, clobetasol was significantly better than PUVA sol at achieving 75% repigmentation (relative risk=4.70; 95% CI, 1.14–19.39).\(^1\) An earlier meta-analysis showed several interventions to be effective (>75% repigmentation) compared with placebo: oral methoxsalen plus sunlight (OR 23; 95% CI, 1.3–409; number needed to treat [NNT]=3.3), oral trioxsalen plus sunlight (OR 3.7; 95% CI, 1.2–11.3; NNT=5.4), and oral psoralen plus sunlight (OR 20; 95% CI, 2.4–166, NNT=3.7). Treatment with methoxsalen plus sunlight had a much higher rate of adverse effects, such as nausea, phototoxic reactions, and pruritus, than trioxsalen plus sunlight. Two small case series suggest that broadband or narrowband UVB hold promise.\(^2\)

No trials evaluating micropigmentation, melanocyte transplantation, depigmentation, or cosmetic camouflage could be found.

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Beatrix Roemheld-Hamm, MD, PhD
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3. Lepe V, Moncada B, Castanedo-Cazares JP, Torres-Alvarez MB, Ortiz CA, Torres-Rubalcava AB. A double-blind randomized trial of 0.1% tacrolimus vs 0.05% clobetasol for the treatment of childhood vitiligo. Arch Dermatol 2003; 139:581–585. (LOE 1b)


Should all patients with type 2 diabetes be on daily aspirin for primary prevention of cardiovascular events?

Evidence-Based Answer

No. Current recommendations are that only patients with type 2 diabetes who have additional cardiovascular risk factors (age >40 years, hypertension, dyslipidemia, albuminuria, tobacco use) should use daily low-dose aspirin. (SOR C, based on expert opinion.) However, these additional risks are found in a large number of adults with diabetes.

Three trials have been used to support recommendations for use of aspirin as primary prevention in patients with type 2 diabetes.\(^1\)\(^3\) The Early Treatment Diabetic Retinopathy Study trial included 3,711 patients with type 1 and 2 diabetes, 49% of whom had a history of cardiovascular disease (mixed primary and secondary prevention study).\(^1\) Patients received 650 mg aspirin or placebo daily. There was a reduction of myocardial infarction risk (relative risk 0.83; 99% confidence interval [CI], 0.66–1.04; P=.04; number needed to treat [NNT]=44), but no benefit in mortality or overall cardiovascular event rates.

The Physicians’ Health Study randomized 22,071 male physicians (533 with diabetes) to 325 mg aspirin or placebo daily. Overall there was a 44% reduction in risk of myocardial infarction

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