<table>
<thead>
<tr>
<th>Study Characteristics</th>
<th>Population</th>
<th>Intervention Groups</th>
<th>Results/Measures</th>
<th>Outcome</th>
<th>Results (general)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Queale 1997</td>
<td>USA</td>
<td>Prospective cohort</td>
<td>Purpose</td>
<td>To identify predictors of hypoglycemic and hyperglycemic episodes in hospitalized patients with diabetes with special attention to the effectiveness of sliding scale insulin regimens.</td>
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<tr>
<td>Men and women (56.7%)</td>
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<tr>
<td>Mean age 61.3 (12.9)</td>
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<tr>
<td>African American 86 (50.3%)</td>
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<tr>
<td>Body weight 80.4 (22.8) kg</td>
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<tr>
<td>APACHE III score 36.9 (12.3)</td>
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<tr>
<td>Charlson Comorbididity 3.3 (2.2)</td>
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<td>Diabetic complications 49 (28.7)</td>
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<tr>
<td>Admission glucose 211.1 (107.9) mg/dL</td>
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<td>Admitting dx</td>
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<tr>
<td>CVD 93 (54.4%)</td>
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<td>Infection 24 (14.0%)</td>
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<td>Other 54 (31.5%)</td>
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<tr>
<td>Purpose</td>
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<td>To identify predictors of hypoglycemic and hyperglycemic episodes in hospitalized patients with diabetes with special attention to the effectiveness of sliding scale insulin regimens.</td>
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</table>

**Intervention**
- Blood glucose measurement 4 x d (before meals and bedtime)
- Glucose data collected from the morning after admission for 4 full days (or discharge)

**Measure**
- N = 171
- Men and women (56.7%)
- Mean age 61.3 (12.9)
- African American 86 (50.3%)
- Body weight 80.4 (22.8) kg
- APACHE III score 36.9 (12.3)
- Charlson Comorbididity 3.3 (2.2)
- Diabetic complications 49 (28.7)
- Admission glucose 211.1 (107.9) mg/dL
- Admitting dx
- CVD 93 (54.4%)
- Infection 24 (14.0%)
- Other 54 (31.5%)

**Inclusion**
- Hx diabetes mellitus
- Comorbid condition

**Exclusion**
- Diabetic ketoacidosis as admission dx
- New onset diabetes
- Hyperosmolar nonketotic coma
- Acute hypoglycemia
- <4 capillary blood glucose measurements during hospitalization

**Intervention Groups**
- Blood glucose measurement 4 x d (before meals and bedtime)
- Glucose data collected from the morning after admission for 4 full days (or discharge)

**Results/Measures**
- Suboptimal glycemic control was common in medical inpatients
- Increased risk
  - African American race
  - Low serum albumin
- Reduced risk
  - Corticosteroid use

**Sliding scale regimens**
- 80% of standing or sliding scale regimens unchanged during study period

**Measure Outcome**
- Measure Outcome
- Measure Outcome

**Outcome**
- Suboptimal glycemic control was common in medical inpatients

**Results (general)**
- Patients at greatest risk for hyperglycemia included African Americans, men with low body weight, and individuals with low serum albumin levels

**Conclusion:** The risk of suboptimal control is associated with selected demographic and clinical characteristics, which can be ascertained at hospital admission. Although sliding scale insulin regimens are prescribed for the majority of inpatients with diabetes, they appear to provide no benefit; in fact, when used without a standing dose of intermediate-acting insulin, they are associated with an increased rate of hyperglycemic events.