Nurse Questionnaire for All Patients with Diabetes who Inject

Diabetes Nurse/Educator Form – complete 1 form/patient

Coding: /

Country telephone code / Centre number / Patient number (in sequence from 1-25)

1. What type of diabetes does this patient have?
   - Type 1
   - Type 2
   - Gestational

2. Insulin(s) used by patient (tick all relevant answers):
   - Short-acting human (R or Regular)
   - Rapid-acting analogue
   - NPH
   - Long-acting analogue (Levemir [detemir] or Lantus [glargine])
   - Pre-mix human or analogue

3. Total daily dose of each of insulins used (add all units given currently in one day of each kind of insulin and write total after appropriate insulin)
   - Short-acting human _____ (total/day)
   - Rapid-acting analogue _____ (total/day)
   - NPH _____ (total/day)
   - Long-acting analogue _____ (total/day)
   - Pre-mix human or analogue _____ (total/day)

4. Total daily dose (add all the above) _____ (total/day)

5. Rank the patient’s injection site(s) 1 to 4 according to frequency used: most often = 1, 2nd most often = 2, etc.?  
   - Abdomen
   - Thigh
   - Buttocks
   - Arm

6. After examination of the patient, please give your assessment of the visual appearance of injection sites (tick as appropriate):

<table>
<thead>
<tr>
<th></th>
<th>Normal</th>
<th>Presence of Lipohypertrophy</th>
<th>Presence of Lipoatrophy</th>
<th>Inflamed/Red or Swollen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abdomen</td>
<td></td>
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<tr>
<td>Thigh</td>
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<tr>
<td>Buttocks</td>
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<tr>
<td>Arm</td>
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</tbody>
</table>
7. After **palpation**, please give your assessment of the injection sites and measure the diameter of any abnormalities **in mm**:

<table>
<thead>
<tr>
<th></th>
<th>Normal</th>
<th>Presence of Lipohypertrophy? If yes, specify size (mm)</th>
<th>Presence of Lipoatrophy? If yes, specify size (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abdomen</td>
<td></td>
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</tr>
</tbody>
</table>

8. Reviewing questions 6 and 7 above, have you found lipohypertrophy visually and/or by palpation at any site on this patient?
   - Yes
   - No

9. If the patient has lipohypertrophy does he/she inject into it?
   - Yes
   - No

10. If Yes, with what frequency?
    - Every injection
    - Frequently (daily)
    - Occasionally (weekly)
    - Seldom (monthly)

11. Does the patient rotate his/her injection sites with each injection?
    - Yes
    - No

12. Please ask the patient to show you how he/she rotates. Based on this, does the patient practice **correct site rotation** (always injecting at least 1 cm from their previous injection[s])?
    - Yes
    - No

13. Ask the patient to show you how he/she injects, by performing a mock injection. Does the patient lift a skin fold and inject into it?
    - Yes
    - No

14. If yes, how does the patient lift the skin?
    - With 1 or 2 fingers plus the thumb
    - With the whole hand
15. When is the skin fold released?
   - Once the needle is in the skin
   - Once the insulin is totally injected
   - Once the insulin is injected and the needle is removed from the skin

16. What is the approximate angle of needle entry used by the patient?
   - 45°
   - 90°

17. Does the patient use his/her needle more than one time?
   - Yes
   - No

18. If Yes, how many times does he/she use a single needle?
   - 2 times
   - 3 to 5 times
   - 6 to 10 times
   - More than 10 times

19. Check the patient’s needle. What is the patient’s current needle length, in mm__________, and gauge _______G.

20. Why was this length needle chosen for this patient (tick all that are appropriate)?
   - Requested by patient
   - Appropriate for site(s) injected
   - Standard practice in our clinic
   - Improved patient comfort and less pain
   - Reduce risk of intramuscular (IM) injection

21. What was the patient’s most recent HbA1c value___________%?

22. From your observation of the patient’s blood glucose values, would he/she qualify as having ‘frequent unexplained hypoglycemia’**?
   - Yes
   - No

**‘Hypoglycemia’ is defined as the occurrence of ≥1 symptom of low sugar (e.g., palpitations, tiredness, sweating, strong hunger, dizziness, tremor) and a confirmed blood glucose meter reading ≤60 mg/dL (3.3 mM/L). ‘Frequent unexplained hypoglycemia’ is defined as hypoglycemia occurring one or more times weekly in the absence of a definable precipitating event such as a change in medication, diet or activity.**
23. From your observation of the patient’s blood glucose values, would he/she qualify as having ‘glycemic variability’**?
- Yes
- No

**Glycemic variability** is the presence of blood glucose oscillations from less than 60 mg/dL (3.3 mM/L) to more than 250 mg/dL (13.9 mM/L) at least 3 times a week in an unpredictable and unexplained fashion and evidence of such a pattern for at least the previous 6 months

Complete this section only 1 time/educator:

24. Indicate your profession:
- General Nurse
- Diabetes Nurse
- Diabetes Educator
- Doctor (General Practitioner)
- Doctor (Specialist)

25. Are you aware of either local or international recommendations for injection technique in diabetes?
- Yes
- No

_If yes, continue with the following questions_

26. Please rate the significance that the Recommendations have had on your practice (1 = No significance; 5 = Extremely significant)

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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27. Have you changed your clinical practice since the release of the Recommendations?
- Yes
- No
28. If yes, what field of practice have you changed? (tick all answers that apply)

- Psychological care of patients who inject
- Therapeutic injection technique education
- Injection site care
- Insulin storage and suspension
- Injecting process
- The proper use of pens
- The proper use of syringes
- Absorption rates of differing insulin types
- Needle length for children or adolescents
- Lifted skin folds
- Lipohypertrophy
- Rotating injection sites
- Bleeding and bruising at injection sites
- Injections in pregnancy
- Safety needles
- Disposal of injecting material

Thank you for your time