Practitioner research into the effect of training upon injection techniques used by mental health nurses.

- Sibusisiwe Ndhlovu – BSC (Hons) Health, Independent Nurse Prescriber (ANP)
- Richard Russell – RnDip (He) Mental Health Nursing, Independent Nurse Prescriber
Introduction

- In order to ensure that patients receive the best possible standards of care we need to ensure that our practices, skills and techniques are regularly reviewed and are keeping with the current at evidence based practice.
- A recognition of the service users need for privacy, safety, dignity and choice
- NMC Code of Conduct
- Clinical Governance
Background

- Administering intramuscular (IM) injections is an important part of mental health nursing practice (Walsh and Brophy 2010).
- There are several different sites available for the administration of depot injections (dorsogluteal, ventrogluteal, deltoid).
- Research (Gunes et al 2013) suggests the ventro-gluteal site is considered the most reliable and least painful site for injection.
- Anecdotal evidence within BSMHFT suggests that the majority of nurses were continuing to use dorsogluteal as preferred site. It was unclear whether this was related to service user choice of site.
- The nurses research group following a literature review decided to survey all nursing staff within BSMHFT.
Aim

- To determine training and develop needs for improving nursing practice in injection techniques and injection sites for nurses working in the mental health setting.
- To present current best practices in injection techniques and injection sites.
Injection Sites

Deltoid

Dorsogluteal
Vento-gluteal injection

- Anterior superior iliac crest
- Location of the gluteus medius
- Injection point between the knuckle of the index and middle finger
- Greater trochanter
Ventrogluteal injection

- **Advantages**
  - The thickness of the subcutaneous tissue is less than other injection sites.
  - The muscle tissues are large and therefore easier to find as compared to other sites.
  - No large blood vessels or nerves.
  - Less bleeding.
  - It is far from the bone tissue.
An Injection Audit survey was undertaken. An online questionnaire was used during the investigation.

Table 1. Injection Audit Questions

<table>
<thead>
<tr>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>What year did you complete your nurse training?</td>
</tr>
<tr>
<td>What is your job title?</td>
</tr>
<tr>
<td>What is your area of work?</td>
</tr>
<tr>
<td>What pay band are you?</td>
</tr>
<tr>
<td>Which of these injection sites do you use most often?</td>
</tr>
<tr>
<td>Which of these sites did you receive training on during pre-registration training? (Tick all that apply)</td>
</tr>
<tr>
<td>When did you last receive a training update on injection administration?</td>
</tr>
<tr>
<td>Do you offer a choice of injection administration site to service users? If yes, which site do service users choose most often?</td>
</tr>
<tr>
<td>Do you think you will benefit from further training on injection administration?</td>
</tr>
<tr>
<td>Additional comments...</td>
</tr>
</tbody>
</table>

• All information obtained from survey respondents was treated confidentially.
Survey findings

Site Used Most Often (n=411)

- Deltoid: 321, 78%
- Dorso Gluteal: 45, 11%
- Ventrogluteal: 14, 4%

Sites Received Training In (n=411)

- Deltoid: 14
- Dorso Gluteal: 242
- Dorso Gluteal/Deltoid: 55
- Dorso Gluteal/Ventrogluteal: 19
- Dorso Gluteal/Ventrogluteal,Deltoid: 42
- Ventrogluteal: 32
- Ventrogluteal/Deltoid: 6

Would You Benefit From Further Training (n=411)

- No: 326, 79%
- Yes: 85, 21%

Do you offer a choice of site for injections? (n=411)

- No: 275, 67%
- Yes: 136, 33%

Site Chosen (n=275)

- Deltoid: 56
- Dorso Gluteal: 179
- Ventrogluteal: 38
- Not Known: 2
NVivo 10 was used to analyse and code 171 data points.
Six broad themes were identified.

Table 2. Themes identified in additional comment section in the Injection Audit Survey

<table>
<thead>
<tr>
<th>Theme</th>
<th>Subthemes</th>
<th>Number of comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Training</td>
<td>1.1 Require update</td>
<td>43</td>
</tr>
<tr>
<td></td>
<td>1.2 Critical of training</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>1.3 Suggests improvement to training</td>
<td>13</td>
</tr>
<tr>
<td>2. Role does not require them to do this</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Nurses are concerned about technique</td>
<td>3.1 Drug manufacturer's approval of injection</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>3.2 Concern about invasive technique</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>3.3 Nurses worried about hurting someone</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>3.4 Use on heavier patients</td>
<td>1</td>
</tr>
<tr>
<td>4. Confidence</td>
<td>4.1 Low confidence due to lack of practice</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>4.2 I know how to do this</td>
<td>6</td>
</tr>
<tr>
<td>5. Service user's preference</td>
<td>5.1 Service users prefer this</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>5.2 Service users resist this</td>
<td>5</td>
</tr>
<tr>
<td>6. Nurses are reluctant to change practice</td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>
“During nurse training, we had one classroom session in the first year about the ventro-gluteal site, but I have never seen it in practice. I don’t consider one classroom session at the beginning of my nurse training adequate enough to consider myself trained on using this site.”

“I recently attended additional training on injection sites. It was really good, and I really appreciated the update. I think that this should be offered regularly to ensure good practice, as I am sure there are plenty of dinosaurs around like me, who can still learn a new trick or two.”

“I have recently received training on depot administration, but would like it to be a regular thing.”
Conclusions

Evidence finds high percentage of nurses received training.

However, external studies show that most nurses are not aware of the advantages of using the ventrogluteal injection site (Kilic et al. 2014).

Low level of uptake from service users to receive the injection via ventrogluteal site.

Despite having received training, nurses have requested further training/update.

This may indicate low levels of confidence although only 9 people stated they lacked confidence.
Recommendations

- To Carry out further updates as requested
- Implementation plan regarding increased use of ventrogluteal site administration or service user choice.
- Further Liaison with universities regarding pre-registration training and expectations of administration.
- Discussion regarding this as a competency for all newly qualified nurses.
References

- BSMHFT (2015) MEDICINES CODE POLICY
- Gunes, U Y et al (2013) Which site is more painful in intramuscular injection? The dorsogluteal site or the ventrogluteal site??
- Are techniques used for intramuscular injection based on research evidence? | Practice | Nursing Times [Internet]. [Cited 2015 Jan 3]. Available from: http://www.nursingtimes.net/1952004.article
Any questions?