“Mind the gap – reducing the detection gap for Atrial Fibrillation (AF) in Mental Health settings

Sarah Galloway, Quality Improvement and Innovation Project Manager, RMN

BACKGROUND

In the UK, someone suffers an Atrial Fibrillation (AF) related stroke every 18 minutes. Mental health users often do not access physical health checks or lifestyle support, leaving a vulnerable population.

People with a Severe Mental Illness (SMI) have a shorter life expectancy by 15-20 years than the average person. Many psychiatric patients are at risk of a stroke due to risk factors such as age, smoking, cholesterol, lack of exercise, poor diet, family, history, psychotropic medication etc. This project looks at how we can use digital innovations, providing a timely and proactive approach.

• The risk of developing AF is 1 in 4, with the risks increasing with age.
• In London, at least 1 in 4 people diagnosed with AF are not receiving appropriate anticoagulation therapy.

AIM

SWLSTG Mental Health Trust were fortunate to be offered the KARDIA mobile ECG devices to test in mental health settings. Whilst the device screens for AF it also generates the ECG reading, which will allow clinicians to calculate a QTC interval. This is of vital importance as some psychiatric medications are known to prolong the QTc interval, and best practice is to offer ECG monitoring. However, many patients find the traditional 12 lead ECG too invasive or may be too unwell to engage. The single lead KARDIA device will be offered as an alternative if patients refuse a 12 lead ECG.

INTERVENTION IDEAS

Pop-up clinics with Kardia machines

LOCATING THE PROBLEM?

On admission every patient is offered a 12 lead ECG as part of their physical health assessment. We were unable to obtain accurate information on the uptake but a manual search was completed on one in-patient mental health ward to provide some baseline data (see Table below). As the project is gathering momentum we have interest from clinical settings such as A&E Psychiatric Liaison where 12 lead ECG’s are challenging to achieve.

<table>
<thead>
<tr>
<th>Month</th>
<th>Number of admissions</th>
<th>Number of ECG’s refused</th>
<th>Number of ECG’s accepted</th>
<th>Discharged with no ECG completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>July</td>
<td>21</td>
<td>6</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>August</td>
<td>14</td>
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<td>3</td>
</tr>
<tr>
<td>September</td>
<td>16</td>
<td>4</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>October</td>
<td>30</td>
<td>8</td>
<td>1</td>
<td>7</td>
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<tr>
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<td>8</td>
</tr>
<tr>
<td>December</td>
<td>31</td>
<td>12</td>
<td>7</td>
<td>5</td>
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<tr>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>February</td>
<td>12</td>
<td>5</td>
<td>5</td>
<td>2</td>
</tr>
</tbody>
</table>

POP-UP CLINICS

As this is a new innovation and we were unsure of uptake it was important to Helpful feedback was given from those attending about the need to increase awareness of physical health issues and find imaginative and opportunistic solutions to the current problem.

REFLECTIONS

• Entering physical health data in patient records accurately was highlighted as an area for further development and was unexpected by the project team.
• Embracing Digital technologies in mental health will help reduce the inequalities but will require significant investments.
• The project was able to discover new insights through using a mental health setting. Some of our deaf staff attended the clinic and some hearing aids interfere with recordings.

FUTURE IDEAS

• Embrace the enthusiasm of the AF screening by offering more pop-up clinics, reducing burden on staff by using a rota system. Popular Trust events such as the annual BBQ and Sports Day would help reach a wide audience.
• Service users involvement has been sought and we are awaiting involvement. It is hoped that future pop-up clinics could be co-produced between staff and service users/carers.
• In order to reach as many staff as possible, it would be beneficial to include AF screening at monthly staff inductions and during the flu campaign.

ACKNOWLEDGEMENTS

• The project benefited greatly from the Steering Group, collaborating with many professionals in the organisation.
• A special thank you to Alex Lang and the Health Innovation Network, both for the solutions to the current problem.
• The data was gathered through the resolute hard work of Karen Vasconcellos, RMN.

PLAN

PHASE 1

• Test KARDIA machine in 1 in-patient mental health ward using PDSA cycles
• Embed KARDIA in 8 in-patient and 2 Older Adults mental health wards, offering screening for patients who refuse 12 lead ECG’s
• Measure uptake and number of patients who refuse 12 lead ECG’s
• Test interest for pop-up clinics and suitable locations

PHASE 2

• Roll-out KARDIA machines to community services e.g. Clozapine clinics and Older Adults CMHT’s

PHASE 3

• Pop-up clinics for staff, service users, relatives and members of the public have proved successful

PHASE 4

• Analyse data and disseminate findings both within SWLSTG and wider through publications, etc.