The clinical & financial impact of a new nurse-led service for the insertion of Implantable Loop Recorders (ILR) at UHL

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**Background**

- Implantable Loop Recorder (ILR)
  - patient and automatically-activated monitoring system that records subcutaneous ECG
- Injected subcutaneously with LA

![Image of ILR device]

**Insertion of a Reveal Linq device using a bespoke injection tool**
Service Provision

* Historically implanted by senior medical staff
* Allied Health Care Professionals trained
* Waiting time of up to 15 weeks
* No dedicated time on catheter lab list
* Various operators
UHL Proposed ILR Service

* Dedicated service for ILRs

* Led by Allied Health Care Professionals

* Proposed benefits
  ✓ Improved time to diagnosis
  ✓ Reduce bed days
  ✓ Meet 6 week waiting times
  ✓ Improve patient satisfaction
  ✓ Maintain low complication rates
New ILR Service

- Tues am in Decommissioned Lab
- Radial lounge on ward 32
- 2 qualified nurses
  - Consented
  - Antibiotic prescription (currently under review)
  - Consultant available for advice
- Company representative for technical support
- 5 - 6 patients (ideally all MRSA screened)
- Set up for home monitoring
- Improved access for urgent cases, In patients
- Same day implants from syncope clinic
Audit Objectives

- Review of
  - Service referral rates
  - Implant numbers
  - Financial impact
  - Complication rates
  - Indications of ILR
  - Diagnostic information at:
    - 1, 3, 6 & 12 months
- Snap shot of service
Clinical & Financial impact of the new service

* Service was reviewed between 2 comparable time periods

  * 6 months

  * April – November 2016 & 2017
Total Number of patients

- Day Case
- Emergency
- Inpatient
- Total

April 16 - November 16

April 17 - November 17

Heart Rhythm Congress
Number Of Referrals

April 2016-November 2016
April 2017-November 2017
Complications

* Medical implants
  * infection rate was 1-2%
* 2016 –
  * 5 ILRs were explanted due to infection
* AHCP - 87 devices implanted between the 2 operators
* 2017 –
  * 2 devices explanted due to infection,
  * 1 treated with antibiotics superficial infection
  * 1.7% infection rate
* Learning curve
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<th>Previous model</th>
<th>New model</th>
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<td>Cardiologist</td>
<td>£214.29</td>
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<td>Nurse</td>
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<td>Cardiac Physiologist</td>
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<td>Cath lab room</td>
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<td>Day case bed x5</td>
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<td>Radial Lounge</td>
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<td>Total</td>
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<td>Cost differential</td>
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Cost per patient

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Tariffs 2016/17

* ILR device £1800 (including home monitoring)

* Elective tariff
  * £4,046 - 4,154.83 (2018 - £3,878)

* Non elective tariff
  * £6986 – 11,444.06

* Income generated
  * 2016 - £488,386
  * 2017 - £721,493 (£233,107)
Conclusion

* Safe
* Effective
* Streamlined referral & booking system
* Improved waiting times and reduced length of stay
* Increased flexibility and access
* Increased access for other cardiac device patients
* Achievement of the 6 week waiting target
Next steps

* Training of other AHCPs

* Evaluation of Patient experience of the service

* Same day syncope clinic patients experience

* Increasing implant numbers

* Training in explants