



Putting Service at Heart of Healthcare



# MANAGED EQUIPMENT SERVICE SOLUTIONS

Guaranteeing the highest standard of equipment, reducing clinical risk and increasing productivity.



## WHAT IS A MANAGED EQUIPMENT SERVICE (MES)

A Managed Equipment Service (MES) is a partnership approach to the procurement, maintenance and management of medical equipment to a hospital group specification for which an availability charge is levied. All risks associated with installation, training, maintenance, support, replacement and disposal are borne by the equipment provider. This approach allows healthcare organisations to maximise return on investment whilst ensuring the best clinical outcomes that modern medical equipment technology can provide.

**“Cardiac Services and Philips Healthcare have formed a tremendously successful partnership at the Royal Victoria Hospital. The Customers consistently praise the flexibility and quality of service delivered by both companies, acting as one seamless Managed Service Provider.”**

- Joe McCallum  
MES Business Manager

## THE ROYAL VICTORIA HOSPITAL BELFAST



The Royal Victoria Hospital treats over 80,000 people as inpatients and 350,000 people as outpatients every year, providing local services to the people of Belfast and a large number of regional specialist services to people from across Northern Ireland. These specialist services include Cardiac Surgery, Critical Care and the Regional Trauma Centre.

The Royal Victoria Hospital and other Healthcare Services are under increasing pressure to achieve performance targets, deliver safer services and reduce costs. Managing medical equipment under a

Managed Equipment Service (MES) contract is an innovative method to help hospitals like the RVH realise these goals and facilitate cost efficiencies in the following ways:

- Unitary payments paid from the Hospital Group revenue budget - this negates capital charges, inflation and rising equipment & maintenance costs
- Fixed charges in line with RPI/CPI rates - this negates the risk of rising equipment and maintenance costs.
- Existing equipment and leases can be transferred to the MES
- Time saved – regulation and similar risks such as tax, budgeting and procurement processes

## CARDIAC SERVICES - 'PAY PER USE' SOLUTION

In 1998 Cardiac Services implemented a successful self-funded managed equipment service (MES) within the Royal Victoria Hospital. This would be the first of many long standing customer partnerships that Cardiac Services would develop following the success of this venture. This innovative undertaking included a 'Pay per Use' model which ensured that the hospital had access to the very latest equipment at all times and during this seven-year term Cardiac Services acquired the skillsets needed to structure a larger and more effective managed service solution for the hospital.

**“I have been involved in the provision of services on behalf of Cardiac Services for this MES for over 10 years, during that time I found it challenging, but very rewarding, working in partnership with Philips, Manufacturers, Clinicians, Technicians and Trust Managers, all of which are working towards the same goal; providing the very best care for the Patient. The success of this service is dependent on the people working within and working together for better clinical outcomes, providing the very latest technology at the right time, within a set financial model.”**

- Mark Reid  
Managing Director, Cardiac Services

## RVH - IMAGING CENTRE

In 2005, the Royal Victoria Hospital needed to make a move into a new building (The Imaging Centre) which would have required significant capital investment (MRI, CT, X-Ray). However, there was also a need to replace aging equipment in other areas of the Hospital, and leasing arrangements were coming to an end. Given that Cardiac Services had already implemented a successful MES solution within the Anaesthesia, Theatres & Intensive Care (ATICS) from 1998, although on a much smaller scale, it gave the Hospital proof of concept that Cardiac Services could potentially be considered as a trusted partner in delivering a much larger MES Solution. However, in order to move forward with the tender process, Cardiac Services partnered with Philips Healthcare to ensure that they could provide the best possible service and expertise to the hospital. A lot of the assets included imaging equipment which Philips Healthcare could provide ample experience and expertise in this area to assist Cardiac Services.

This contract led to Cardiac Services becoming the Major sub-contractor and contractual partner with Philips for a 15 year MES contract for the hospital, which they still manage today. They have sole responsibility for over 550 individual pieces of Medical Equipment; including initial market research and clinical trials, ensuring equipment meet set output based specifications, purchase of equipment, logistics, installation, clinical application and equipment training and ongoing maintenance support. The management of this contract is via various SLA's, A Financial Model and Equipment Replacement Program. Maintenance, ordering and downtime are processed via an on-line software program (MVS) and is audited on a monthly and annual basis. Penalties can be incurred for supply chain, downtime and lack of adherence to SLA's etc. However, to date {13 years} Cardiac Services have not incurred any significant penalties during this time.

## 15 YEAR MES SOLUTION - IMPLEMENTATION CHALLENGES

During the first 13 years of this MES contract Cardiac Services has developed the required skills, personnel, logistics, project management, standard operating procedures and IT Systems required to successfully run a multi-million supply chain contract effectively. However, there were and are many challenges, firstly sourcing/procuring the required equipment within a tight Financial model, the logistics of receiving delivery of the equipment within the financial year and implementing same in a busy Clinical area, where the service cannot stop. There are real Patients connected to the equipment, in critical areas, such as ICU, Theatres and Cardiology, and there can be no downtime, so our Staff have to work with the Hospital staff very closely, so as not to disrupt their clinical practice and care.

## Numerous risks are also transferred from the Public sector to the Private sector in an MES, these could include:

- Initial capital costs of equipment
- Costs in maintaining equipment
- Inflation and rising equipment & maintenance costs
- Risk of technology obsolescence
- Staff training
- Commissioning & decommissioning of equipment
- Risk of downtime, overall availability of equipment
- Reliability of equipment & rectification of faults
- Residual value of equipment
- Regulation, Tax and budgeting

**“For us the MES contract (15 years) is working extremely well. Responsiveness in terms of responding to the usual equipment issues that develop in any system is something that we place great emphasis on, and we have found both Philips and Cardiac Services to be very responsive. They understand the demands of a high volume tertiary cardiology service and are very willing to “work around” us. As a cardiology service we have found what we require in terms of equipment has changed since the start of the MES, and we have found both Philips and Cardiac Services very willing to consider our changing needs and we have always been able to negotiate a suitable outcome. They are always very willing to engage with clinicians.”**

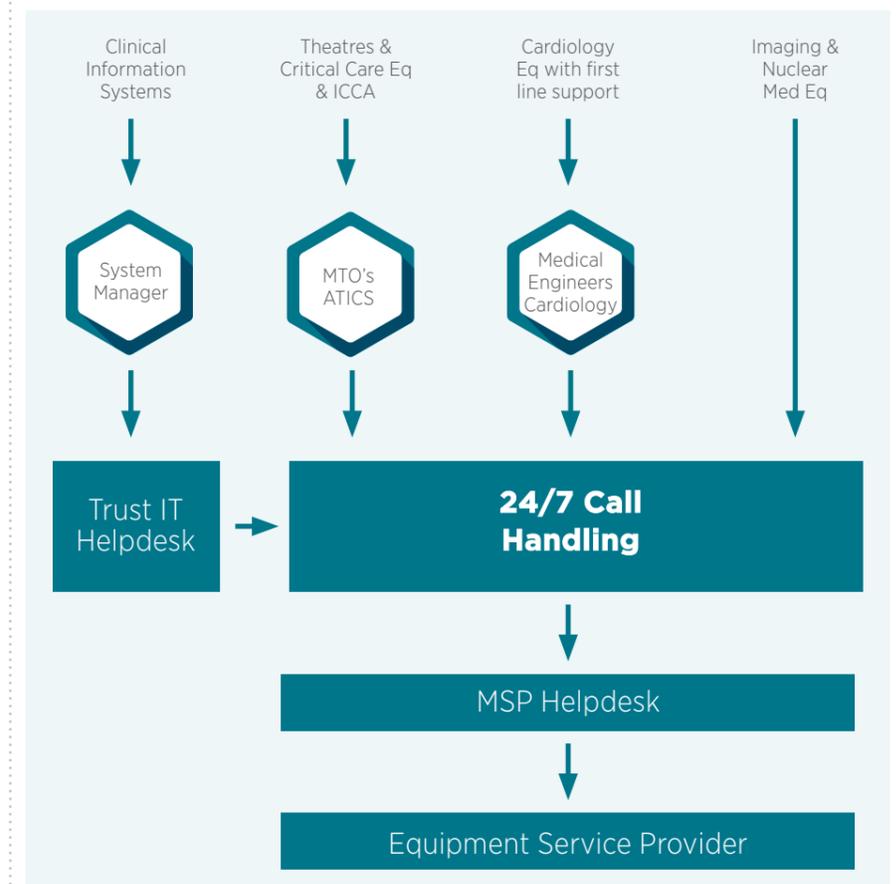
- Carol M Wilson MD FRCP FACC FESC  
Consultant Cardiologist

## SERVICE LEVEL REQUIREMENTS

Part of the MES contract includes identifying the needs of the staff and Clinicians within RVH and how Cardiac Services could facilitate these requirements. They agreed on the following to ensure the MES solution was as efficient as possible:

- Helpdesk 24/7 Call Logging
- Phones answered within 30 seconds
- Uptime IT Systems 99.8%
- Uptime Imaging Equipment 98%
- Response Times
- Imaging Equipment
- Urgent, 15 minutes (system down)
- Major, 30 minutes (partial fault, but system up)
- Routine, Next Working Day (minor fault)
- MCISS = Clinical Information Systems
- Based on Priority

## HELP DESK FLOW



\* MTO = Medical Technical Officer  
ICCA = Intellivue Critical Care & Anaesthesia

## PATIENT SAFETY AND CLINICAL OUTCOMES

Many healthcare providers continue to use equipment not just beyond its replacement date but may also 'sweat' the equipment well beyond its economic life due to budget restraints, increasing the burden of clinical risk for the service provider. With this MES partnership solution, the Royal Victoria Hospital is guaranteed that their medical equipment is maintained to the highest standard and is replaced at an agreed interval, ensuring patients and clinicians always have access to the highest standard of equipment provided by Cardiac Services. This not only reduces clinical risk and increases productivity but also ensures the continued availability of equipment at all time.

**Another MES advantage is that the clinicians in the RVH have access to the latest technological advances ensuring that patients are treated with the best available medical technology and solutions to maximise clinical outcomes.**

All equipment provided to the Royal Victoria Hospital is serviced in accordance with the manufactures recommendations. In addition, the MES provides a proactive response to risk management associated with product recalls, medical device regulation, decontamination, hazard warnings, compliance and compatibility issues.



## COST EFFICIENCIES USING AN MES SOLUTION

The core elements of the (MES) solution also help the Hospital achieve cost efficiencies. As the equipment remains the property of the supplier, there are no capital charges for the health care provider, this amounts to a substantial saving. In certain jurisdictions VAT exempt organisations may also be able to claim back VAT even though they have not purchased the equipment.

Traditionally medical equipment services worked on a Time and Materials (T&M) basis, where repairs were carried out on an ad hoc basis as faults arose and they charged for labour and materials. An MES includes a comprehensive service agreement paid for on a monthly basis allowing the service provider to provide more accurate budget forecasts. Furthermore, an MES allows the care provider to mitigate capital investment risks without incurring unexpectedly high T&M costs. Service providers are becoming more proactive in eliminating Time and Materials costs from their clinical services portfolio as it is inconsistent with an integrated and planned services strategy.

A MES also allows for advance resource planning as it includes installation, integration and provision of staff training, allowing watertight logistical planning to ensure there are no 'hidden costs' or surprises which have traditionally stretched budgets even further.

Additional cost benefit is realised with regards to administrative processes, a MES provider will work on your behalf to source and secure the clinicians requirements by actively engaging with them and procuring those requirements, or the best option in accordance with the agreed budget, taking a Vendor neutral approach.

The cost advantages of this are clear, no capital investment costs, no unexpected service costs and no depreciation costs while providing essential modern medical technology which is never beyond its economic life.



## LOOKING FORWARD

Cardiac Service have the capability to successfully run large and complex supply chain contracts. They pride themselves in leveraging from their vast experience, financial forte and understanding and adherence to Quality & Compliance requirements. They also have vast amounts of logistics experience and the utilization of a **36,000 sq. ft. warehouse which is a HPRA approved storage facility in Dublin.**

Cardiac Services work in partnership with leading manufactures but are not tied to a particular product, therefore provide true Vendor independence. This allows them to match the clinical requirements of the healthcare provider to the preferred optimum technology solution available on the market.

The benefits of partnering with a local company include rapid deployment of locally based engineers, availability of off-site training facilities and access to our own training specialists, local engineering workshops for quick repairs and local warehousing and stock management facilities enabling faster turn-around times.

Cardiac Service has the experience and ability to provide a total solutions service to the highest of standards. It is what we do best, allowing the healthcare provider to do what it does best, provide the highest standard of care to its patients.

## AT A GLANCE - KEY TAKEAWAYS



### Challenges for the Royal Victoria Hospital:

- Affordability and availability of technology
- MES with leading technology partner



### Cardiac Services Solution:

- Treat technology as an operating expense
- Equipment replacements included
- Downtime, due to equipment failure, is minimised



### Why Cardiac Services:

- Provision through Service Level Agreement
- On-site staff and performance based SLA
- Integrator role and vendor independence
- Risk of keeping pace with fast changing technology is passed to Cardiac Services



**“The Belfast Trust entered into a contractual arrangement for the provision of a Managed Equipment Service on one of its hospital sites (covering Imaging, Cardiology, Theatres and Critical Care Services). From the very start of the contract, Philips and Cardiac Services has worked in partnership with the Trust to deliver a high level of service. One of the key successes of the contract has been there willingness to work flexibly with the Trust when making decisions regarding the replacement of equipment or the need for alternative/additional equipment to be introduced to the departments adding value in a number of areas through their knowledge of the latest technological developments and expertise in healthcare solutions.”**

*- Mrs B. Owens  
Director of Unscheduled Care*

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