

WHITE PAPER

Demystifying Managed Equipment Services

A paper produced by Asterol to introduce, simplify
and explain the Managed Equipment Service concept

Overview

Managed Equipment Services (MES) is the outsourcing of all aspects of medical equipment to a third party company that specialises in providing this type of service.

Managed Equipment Services (MES) is the outsourcing of all aspects of medical equipment to a third party company that specialises in providing this type of service. This company will provide the expertise to purchase, install, train users, manage and maintain a portfolio of medical equipment on a long-term basis. The MES provider will usually own the equipment and provide it to the Trust as part of a managed service, which encompasses all the necessary elements to support effective use of the equipment. Since the MES provider has a single focus on medical equipment and a larger presence in the market than individual NHS Trusts, it is able to provide a higher standard of service at a cost effective price.

The outsourcing of non-core activities is common in large organisations that seek to transfer risk to third party specialist organisations who are better able to manage it. This can enable NHS management to concentrate on its core role of providing a high standard of clinical services to patients. It is also often a catalyst for wider service reform.

MES provides a strategic approach to managing equipment, which ensures that medical equipment is maintained to a high standard and is replaced to an agreed investment plan. This ensures that patients and clinicians always have access to the highest standard of equipment, hence reducing clinical risk and increasing productivity. With MES in place, the availability of medical equipment is rarely an issue.

The Benefits of MES

Benefits to Patients	Benefits to Clinical Staff	Benefits to Trusts
<ul style="list-style-type: none"> ● Modern equipment improves treatment and safety ● Shorter waiting times ● Swifter procedures ● Quicker delivery ● Reduced risk through ongoing staff training and regular equipment servicing ● Improved hospital environments help to reduce patient anxiety 	<ul style="list-style-type: none"> ● Access to up-to-date and well maintained medical equipment ● Reduced equipment downtime enables better use of staff time ● Improved working environment ● Secured investment plan provide greater ease in budgetary planning ● Enables staff to focus on improved patient care 	<ul style="list-style-type: none"> ● Long term savings of 5-10% compared to an equivalent internal service ● Transfer of risk to the MES provider enabling focus on the core role of providing high standard clinical services ● Enables increased productivity and service reform ● Enables long-term budget planning and stability ● Guaranteed equipment uptimes reduce cancellations ● Waiting times are reduced and care pathways improved through increased equipment utilisation



MES includes the following elements that combine to provide a complete service managed by a specialist organisation in order to explain the concept of the total service provided by Managed Equipment Services, each section of the above graphic is explained in more detail.

Finance

Typically an MES contract will last 15 years or longer. It is likely to involve a significant investment in equipment at the start of the contract, to purchase existing equipment from the Trust, to provide new up to date equipment, or both. There will be at least one cycle of equipment replacement during the life of the contract plus ongoing maintenance and training. The MES provider will put in place an investment plan covering the full duration of the contract and will secure the necessary capital funding, either using it's own resources or more likely borrowing from a Bank, at the start of the contract.

The involvement of a separate finance company providing the investment, gives NHS Trusts security that the MES provider is underwritten by a major financial institution. It also ensures that once an MES contract is signed the Trust has secured access to external capital. Since the funding is provided as part of a managed service, it will be off balance sheet and will not incur capital charges. Typically the MES provider will have a track record of working with a number of different financial institutions and hence be able to secure capital at a competitive rate of interest.

Equipment Planning & Rationalisation

A competent MES provider will be able to assist in establishing equipment needs via an audit of existing assets, workflow analysis and technology assessment. They will use this information combined with their broad skill base to provide innovative and efficient solutions. This may involve rationalisation and standardisation where appropriate. The MES provider will act as a partner to Trust management and will assist in recommending the most cost effective approach to managing the equipment base.

Prior to commencing the service, an investment plan covering the life of the contract will be agreed between the Trust and the MES provider. This will identify all items of equipment, the technology band and the replacement dates.

In order to ensure that the MES provider fully takes on the risk of the cost of replacing equipment, each item is placed in a band that identifies where it sits in the spectrum of technology currently available for that type of equipment. Usually there are 4 bands covering state of the art research equipment, through to basic clinical workhorse equipment. When equipment is replaced, as determined in the investment plan, a new item will be selected from currently available equipment in the same band, thus ensuring that advances in technology are provided at no additional cost to the Trust.

The Investment Plan is intended to be flexible and it is always possible for Trusts to request new additional equipment or to change the band of an item of equipment via a simple contract variation.

Design & Build Interface

Often, though not always, Trusts will consider adopting MES at the same time as a rebuilding programme. An important part of the service offered is the MES provider's ability to interface with the building designer to review and comment on drawings to ensure that the needs of the equipment are considered at the design stage. A forward thinking MES provider will also ensure that room design is as 'future proof' as possible and is generic rather than being based on specific equipment manufacturers' specifications.

The MES provider may also be able to offer a full room design service or take responsibility for project managing the full fitting out of rooms. This service will reduce the Trust's overall construction risk since the MES provider is able to employ the necessary expertise and is incentivised to ensure that the equipment rooms are fitted out to a high standard. Essentially the MES provider will represent the needs of the equipment in any project.

Procurement & Invoice Payment

All procurement of equipment is carried out by the MES provider. It is able to employ experts familiar with all of the latest developments in medical technology. They will be able to provide an unbiased expert opinion on the most suitable and best value options available. Clinical staff in the Trust will have input into the decision-making process via the Equipment Investment Committee, which will have representatives from both the NHS Trust and the MES provider.

The complex procurement process, currently followed by Trusts, places a large overhead on any equipment purchase. This overhead is removed by an MES. The MES provider is able to utilise its expertise and considerable buying power to ensure that optimal purchasing decisions are made. Since the MES provider usually owns all equipment, it takes the risk of any quality problems or suitability problems and handles all payments. Currently Trusts have to process numerous equipment related invoices each month, which an MES replaces with a single monthly invoice. The MES provider will use its in-house systems to ensure that a full documentary history of all equipment purchases is maintained, thus removing a significant overhead from the NHS Trust.

A key part of MES is ensuring that equipment is upgraded to the latest version of software and firmware. MES providers will have systems in place for ensuring that upgrades are received and distributed promptly from OEMs. This is not always the case with multi vendor service arrangements, which are generally focused on fault fixing.

User Training

The MES provider will employ an experienced Training Manager to support the Trust. He/she will be responsible for maintaining the training records of all Trust staff using the equipment and ensure that all staff using the equipment are trained to the necessary standard. This improves clinical safety and may assist the Trust in obtaining improved CNST rating, further lowering costs.

It is often the case that fault calls are the result of poor or inadequate user training. It is in the interest of the MES provider to quickly identify and address such situations, which they will do as part of their systematic review of performance. This is an example of a benefit which is unlikely be obtained through a stand-alone maintenance service and results from the integrated nature of MES.

Full Life Asset Management

One aspect of managing equipment that many Trusts have difficulties with is managing the database of assets and tracking their movements and maintenance history. An MES provider will have proven systems in place for identifying all equipment and maintaining accurate records. Regular audits will ensure that this data is reliable as it is an essential tool for managing the service. Since the MES provider owns the equipment it has every incentive to ensure that the data is accurate and up to date.

Maintenance

The MES provider is responsible for all equipment maintenance. It will put in place contracts for the supply of parts and preventative maintenance with the appropriate OEMs. Typically the MES provider will place a team on site that will be responsible for first line maintenance. This team may also carry out some of the equipment maintenance themselves in which case they will be fully trained and certified to do so by the OEMs. Spare parts will be sourced from OEMs as it is in the MES provider's interest to use the highest standard of parts since it owns the equipment and is responsible to the Trust for its performance.

Where Trust personnel previously provided some of this service they may transfer to the MES provider under TUPE arrangements. Whilst this may initially cause some resistance, often clinical scientists and engineers see the benefits and the career opportunities which are provided by working for an organisation which is purely focused on their field of expertise.

Consumables & Reagent Management

An MES provider may be responsible for the stock management of all reagents and consumable items required for the equipment platforms which are under management. This would normally include stock receipt and general ordering, either electronically or manually, to ensure optimum stock levels in the departments. They will provide advice and guidance to contain costs and maximise the efficient usage of reagents in line with supplier recommendations.

The MES provider will manage relationships with all suppliers to provide all necessary reagents and consumables within a single centralised framework. In most cases this will necessitate an on site presence working closely with all key stakeholders to ease the administrative burden on the Trust.

Performance Guarantee & Reporting

An MES contract will usually include a guarantee with regard to the availability of equipment. Typically this will be 98% during working hours, with the MES provider incurring financial penalties if this is not achieved. Arrangements such as leasing or multi-vendor service contracts are unable to provide this kind of guarantee since the means to incentivise performance can only be managed within the overall scope of an MES contract.

The MES provider will maintain accurate records of the performance of all equipment and its in-house call management centre will maintain an accurate log of the progress of all calls. As a major commercial customer the MES provider will have much greater influence over the performance of OEMs and will also have much better systems in place than most NHS Trusts to enable them to manage performance. The MES response desk actively manages all outstanding calls to ensure that the OEM responsible for the maintenance is meeting its contractual obligations. Typically, NHS Trusts have neither the manpower nor the management systems to carry this out effectively. One benefit, which is usually apparent to clinicians in the early stages of a new MES contract, is reduced downtime and improved service on faulty equipment.

The NHS Trust will regularly (typically quarterly) be provided with a management summary and detailed performance reports. If there are areas of underperformance these will be highlighted and the MES provider should explain the reasons and put in place a performance improvement plan to address any issues.

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Call Centre

An effective and responsive Response Desk is key to the successful implementation of an MES contract. The term 'Response Desk' can mislead since it performs a wider role than just handling calls. It is actually responsible for the management and progression of all calls from the point of opening until successful closure.

Usually co-located within the MES provider's offices, the Call Centre operators are specifically trained in medical equipment and therefore provide a knowledgeable interface between the Trust and the OEMs. It is able to provide the Trust with up to date information on the progress of a call. The Trust therefore has a single point of contact with immediate access to full maintenance and performance history of the equipment. This ensures that the essential information is gathered accurately and provided to the OEM. All calls are proactively progressed until closed.

Transfer of Risk

There are several areas where risk can be outsourced to an MES provider. This is of significant benefit to Trusts who are continually seeking new ways to reduce financial exposure. The key areas of risk which are typically transferred are:

- Changes in cost of equipment or maintenance
- Equipment availability/uptime
- Ensuring safety notices are correctly actioned
- Maintaining accurate records of equipment history and training
- Cost of spare parts
- Recruitment and retention of expert staff
- Building specification, design and project management

Insurance

Typically, Trusts insure equipment through the NHS insurance pool, which provides a limited level of cover. An MES contract will include the following cover:

- Equipment loss or damage
- Public, Third Party and Employee Liability
- Professional Indemnity (where advice is given by the MES provider)

The exact level of such cover will be agreed according to the Trust's requirements and can provide a significant transfer of risk from the Trust.

The MES provider should employ healthcare professionals such as clinical scientists, radiographers and technologists with a broad range of experience across the different disciplines and modalities.

Increasingly the NHS is unable to afford staff with specific equipment expertise since it is frequently under utilised in a single Trust. MES therefore becomes an attractive and cost effective option for providing access to specialist knowledge and expertise.

Technological Innovation

Typically, OEM's and diagnostics suppliers with innovative products have a finite technological advantage over their competitors. Within a few years after a product launch, competitors bring technologically more advanced solutions to market.

An MES contract should not only provide a best of breed solution at the start of the contract but also maintain best of breed solutions at refresh. This approach is known as "vendor independence". The MES supplier should maintain close working relationships with all OEM's to ensure all technological innovations are reviewed for potential inclusion into the MES portfolio as equipment is refreshed in the future.

Safety Management

The MES provider will be responsible for distributing and actioning all new safety notices relevant to each Trust's equipment. It will also ensure that both its own and NHS Trust staff are fully and properly trained. Some MES providers also employ certified radiation protection professionals and are able to provide RPA approval of new equipment and carry out the necessary safety checks such as critical examinations.

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MES – A Strategy for Service Reform

“Access to the expertise of a good MES provider and the necessary capital for investment can enable clinical service reform.”

The NHS is under increasing pressure to become more patient focussed whilst at the same time improving its financial management. This is similar to the pressure businesses have had to face in an increasingly competitive global market.

One of the strategies large businesses have adopted is to reduce the number of suppliers they deal with and instead put in place long-term partnerships with a small number of providers who understand their business. This enables them to focus on their core activities i.e. developing new products and looking after customers. NHS managers are now adopting similar strategies and looking for ways to introduce new ideas and methods to improve efficiency.

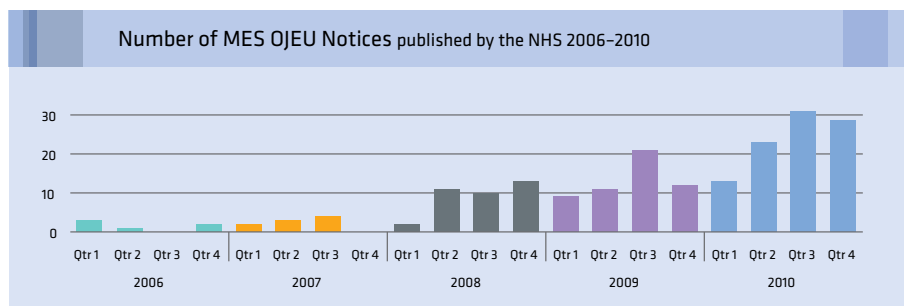
There is increasing pressure on the NHS from government to look for ways in which the private sector can use its expertise to improve the service provided to patients. Initially this drive focussed on the outsourcing of elective surgery and entire clinical pathways through the ISTC programme. MES provides a more focused offering which enables the NHS to continue to provide the patient care it excels at, whilst using the commercial sector to provide the skills to better manage equipment.

Access to the expertise of a good MES provider and the necessary capital for investment can enable clinical service reform. Trust managers are able to concentrate on taking a more strategic view of their operation with the benefit of independent advice on medical equipment matters and long term guaranteed finance.

MES can help Trusts to alter radically the way it procures, manages and uses medical equipment in order to deliver on financial objectives and improve services to patients.

Is MES a new concept?

MES is a growing market. More and more innovative Trusts are starting to embrace the MES concept to improve service and save costs. There are now many NHS staff, clinicians and managers, that have experienced MES and can testify to the benefits they have realised.



What type of equipment can be included in MES?

All types of medical equipment can be included; however, MES is most cost effective for larger items of equipment, for example, radiology, theatres, pathology and radiotherapy, where there are benefits in smoothing the capital expenditure profile.

Once a Trust has decided to procure an MES for major items, it may be possible to extend the scope of the service to include smaller items such as infusion pumps and portable monitors.

What does MES cost? Doesn't MES cost more?

MES contracts have been shown to cost less than the cost of the NHS delivering the same service provided that Trusts take into account all of their direct and indirect costs.

The cost of risks can be difficult to quantify, but many real risks can be successfully passed to the MES provider. It is important to fully realise the benefits and opportunities for cost saving provided, as simple analysis of the direct cost of self-provided equipment management can grossly underestimate the full costs. Many Trusts under-invest in both new equipment and planned and emergency maintenance. This process should not be compared directly with the cost of a properly managed service.

Where the NHS has put together its own Public Sector Comparator (PSC), this has demonstrated that an MES represents excellent value for money.

The cost per annum of MES depends on numerous factors such as the length and terms of the contract, the type of equipment, agreed lifecycles and the level of risk transfer.

It may be of benefit to the Trust to employ advisers to assist with the procurement, in which case it is sensible to incentivise the advisers to achieve a specific and time limited programme. When considering MES, the first step should be to talk to a number of potential providers and visit Trusts who already have MES in place in order to form a better view of the type of service required. This will also help to allay the inevitable fears and possible resistance to change that will be raised within the Trust.

Following this an OJEU advertisement should be placed which will gauge the level of potential provider interest. An 'Invitation To Tender' needs to be produced which provides detail of all of the equipment to be included in the service and outlines the key service improvements which the MES is intended to provide. It must be supported by a strong business case that needs to quantify accurately the direct and indirect, real and hidden costs of the current in house service and the financial benefits and cost savings that will be achieved through MES.

Typically the procurement of an MES will take 6 - 12 months. This depends on the urgency and level of resource a Trust can commit to working through all the relevant matters.

What type of legal contract is used for MES?

The basis for the legal contract varies from scheme to scheme. In the past, many MES contracts were linked to PFIs and hence were based on standard PFI terms. These are not particularly suitable for contracts that are mostly about service rather than capital investment and hence have required extensive modification. Examples that have been approved by the Private Finance Unit (PFU) exist. Increasingly MES is being procured on a stand-alone basis, which is supported by the Department of Health. Model contracts do not yet exist for these however it is likely that providers will develop simpler model contracts to support stand-alone schemes in the near future.

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Is MES a PFI or a PPP?

MES can be procured as a stand-alone contract or as part of a PFI contract. It is not necessarily a PFI and does not need such an initiative to be considered by Trusts. Where it is linked to a PFI, there are advantages in procuring the MES separately.

PPP (Public Private Partnership) is the umbrella term for all arrangements where the Public and Private sectors work together on a project typically with funding provided by the private sector partner. As such MES can be considered a PPP.

How long should an MES contract run for?

The MES Provider will evaluate the equipment investment plan and recommend the optimum contract length on a case-by-case basis. Typically it is better to end a contract at a point at which the book value of equipment is at a low point in the cycle.

The ideal contract length is a balance between long-term, which delivers economic benefits, and shorter term, so that the Trust is not contracted too far into the future. An average length is 15-20 years, but can be as much as 30 years.

MES is a different and unique concept when compared to Multi-Service Vending (MSV) and Operating Leases.

An Operating Lease focuses purely on the financing of capital equipment; there is no risk transfer or service element to the contract. End of lease return conditions can be onerous and costly, whereas with an MES contract, which is not fixed to equipment lifecycles, the risk on condition of equipment at the end of its life rests with the MES provider.

Multi-Service Vending is a customised approach to the maintenance of medical equipment. This can provide some benefits, but lacks the coordinated and long-term approach of MES. MSV contracts also pass much less risk to the provider.

MES looks after all elements of the equipment process, from procurement and financing through to installation, plus the ongoing training of users and maintenance of the equipment. It is the integration of all of these elements that enables the MES to provide an enhanced service to NHS Trusts.

What does 'vendor independent' mean?

A vendor independent MES provider does not manufacture equipment and thus has no incentive to promote particular OEMs, or to increase the uptake of equipment. Since they are not allied to any manufacturers or suppliers of medical equipment this enables them to offer impartial advice and the widest clinical and medical equipment choice.

This puts the independent vendor in a strong position to manage the procurement, delivery and the quality of service provided by OEMs, not least in matching the clinical requirements of a Trust to the optimum technology solution available in the market.

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Asteral is the leading vendor-independent managed equipment service provider. Working closely with NHS Trusts we deliver a wide range of benefits:

Value for money compared with alternative methods of acquiring and managing medical equipment

Greater efficiencies leading to fewer cancellations, increased patient flow and reduced waiting lists

Improved clinical governance through better maintenance, process standardisation and comprehensive record keeping

Access to third-party funding to help Trusts acquire the medical equipment their patients need now and in the future

Enhanced patient experience thanks to better quality facilities and state of the art technology

Defined equipment replacement strategy providing a long term investment plan to meet current and projected equipment needs

Better staff motivation within a more positive working environment where vital equipment is fully operational and available

More time to focus on patient care because Trust staff no longer have to take responsibility for medical equipment management

Transfer of risk from the Trust to an independent specialist bearing all current and future equipment costs in exchange for a fixed service charge