Medical Physics and Clinical Engineering Accreditation
About MPACE

The drive to improve the quality of care for patients, whilst delivering efficiency and productivity, is a key objective for NHS England, NHS Improvement, devolved governments and most healthcare services. Through diagnostic and therapeutic procedures, Medical Physics and Clinical Engineering (MPACE) services directly impact most patients and the care and treatment they receive. It is therefore essential that these services consistently deliver high quality care by maintaining the safety and the accuracy of equipment used and ensuring that procedures are evidence based, safe and effective.

As the UK’s National Accreditation Body, UKAS has been appointed to manage and deliver accreditation for MPACE services. UKAS is the only body recognised by Government to assess and declare the competence of organisations against recognised standards. Accreditation for MPACE services is assessed against the standard BS 70000:2017 ‘Medical physics, clinical engineering and associated scientific services in healthcare – Requirements for quality, safety and competence’.

This formal third-party recognition of the organisational competence required to deliver a high quality service means UKAS accreditation will deliver confidence to service users such as patients, commissioners and staff. Users will be reassured they are consistently receiving high quality care delivered by competent staff working in a safe environment, whilst producing a continuous reliable output.

UKAS, the Institute for Physics and Engineering in Medicine (IPEM) and NHS England have been working together to develop accreditation for a number of MPACE specialisms:

- Biomedical engineering
- Clinical measurement and development
- Diagnostic radiology and MR physics
- Equipment management and clinical engineering
- Medical electronics and instrumentation
- Medical engineering design
- Nuclear medicine
- Radiopharmacy
- Radiation safety
- Radiotherapy physics
- Reconstructive Science
- Rehabilitation engineering
BS 70000 does not detail the technical specification required to carry out specific activities. However, it does require the healthcare service to demonstrate competency and the validity of the methods used to deliver its activities. There are other key requirements which support the safe and reliable delivery of the activities, these include operating a compliant management system, training and competency, traceability, uncertainty of measurement, use of appropriate equipment and facilities amongst others.

- Management System (equivalent requirements to ISO 9001)
- Objective evidence to support competency of staff undertaking the activities
- Operations and use of appropriate methods
- Objective evidence to demonstrate or verify the validity of the adopted methods
- Monitoring of the ongoing validity and reliability of the services being offered
- Use of appropriate equipment
- Traceability of any measurements taken or produced
- Understanding of any uncertainties in the output from the service
- Appropriate handling of items/information submitted
- Appropriate facilities and environmental condition
UKAS announced the MPACE pilot assessment programme in July 2017. The pilot used BS 70000 as the criteria for assessment and focussed on two service areas; Radiotherapy Physics and Clinical Engineering (Medical Equipment Management).

In October 2019, UKAS awarded the first grants of accreditation in both of the pilot service areas and it was concluded that BS 70000 is an appropriate standard for accreditation and that UKAS assessment process was robust, appropriate and undertaken in a proportionate manner. Applications are now open to any Service that wishes to gain accreditation in these two areas.

UKAS is now moving into the second phase of the project and is working with the relevant communities to identify further pilot participants in other MPACE service areas to widen the scope of MPACE accreditation. For more information about the ongoing MPACE development project and potential pilot programmes, please visit https://www.ukas.com/services/technical-services/development-of-new-areas-of-accreditation/current-pilot-projects/medical-physics-and-clinical-engineering-mpace/

UKAS has established a Technical Advisory Committee (TAC) in collaboration with NHSE and IPEM to support the development of accreditation for MPACE and ensure appropriate direction and governance. It consists of representatives from relevant stakeholders and technical experts and provides guidance on all aspects of the accreditation of MPACE on a continuing basis.
Apply for Accreditation

Following the success of the pilot project, UKAS accreditation is now open to all organisations within Radiotherapy Physics and Clinical Engineering (Medical Equipment Management). If you wish to apply for accreditation, further information about the application process and the associated forms can be found at https://www.ukas.com/medical-physics-and-clinical-engineering-accreditation/

Finding an Accredited Service

To find accredited MPACE services, please visit www.ukas.com/search-accredited-organisations/

The influence and use of UKAS accreditation in the Healthcare sector is growing. UKAS accreditation is now available in the areas of Medical Physics and Clinical Engineering (MPACE), Diagnostic Imaging (QSI), Physiological Sciences (IQIPS), Medical Laboratories, Point of Care Testing, Clinical EQA Schemes, Healthcare Pathway Reviews and Dental Service Certification. For more information about UKAS and healthcare accreditation and to find accredited services, please visit www.ukas.com/sectors/healthcare