Staffing and Workload for Clinical Diagnostic Laboratory Services



IBMS Institute of Biomedical Science

benchmark series

Institute of Biomedical Science

Staffing and Workload for Clinical Diagnostic Laboratory Services

As the UK professional body for biomedical science the Institute has established the following policy on staffing, supervision and workload for those responsible for the delivery of clinical laboratory services

The UK health departments have put patient care and safety at the heart of healthcare provision. It is the responsibility of the respective providers and all those involved in the delivery of service and care to deliver safe and high quality patient care. It is the responsibility of the professions themselves to establish those standards of best practice relative to their own professions.

What this policy does

This policy provides professional recommendations to support the delivery of safe and efficient laboratory services, whether provided in a hospital laboratory environment or in a remote clinic or near patient environment. It states the relationship between laboratory workload, staff numbers and skill mix required to manage that workload whilst maintaining quality of service. It provides this guidance to assist identification of those factors which, whilst not part of raw test data, are an integral but less easily quantifiable part of a laboratory service.

What this policy does not

This policy does not attempt to be prescriptive about absolute staff numbers and skill mix. It does not specify which tests, roles or functions can be undertaken only by a specific staff group.

This policy should be read in conjunction with the Institute's policy on Supervision of Biomedical Support Staff (Assistant and Associate Practitioners).

Managing Staffing and Workload

An understanding of workload and service and the quality standards that govern their delivery is necessary for determining an appropriate staff number and skill mix for a particular laboratory service, according to professional standards, quality standards and legal requirements.

The foundation of workforce planning and service reconfiguration is based upon the quantification and analysis of workload volume and complexity. Within pathology there are a number of different approaches to workload measurement, from recording simple request numbers to the allocation of units to reflect actual work done.

Workload monitoring can be used in two ways:

1. Within an organisation to identify and track workflow trends in order to assist in departmental workforce planning, training resource allocation and the development of business cases for change or development.
2. Between organisations to draw comparisons, share best practice, compare costs and to ensure appropriate staff numbers, skill mix and training needs when entering into competitive tendering, network formation and service rationalisation.

Whilst staffing and workload measurement is important for assessing cost efficiency, variations in workload profile, measurement and diversity can make it difficult to apply generic rules or templates. The inherent difficulties in obtaining a general consensus about appropriate measures and comparison points are further exacerbated by the increasing prevalence of cross-discipline working and the fact that some disciplines lend themselves to a particular approach more easily than others.

Despite the difficulties associated with workload measurement, it is becoming increasingly important that there is a recognised framework to provide a benchmark for comparison of service cost coupled with maintenance of professional standards. An inappropriate staff skill mix or an imbalance between staffing and workload may result in base line cost savings but could result in the quality of the service and patient safety being compromised.

General principles

There must be sufficient, trained and competent staff at all levels and at all times to ensure:

- patient safety and professional duty of care
- quality assured analytical processes
- timely and effective service delivery
- good professional practice
- compliance with statutory, regulator, quality and audit standards
- cover for staff absence including annual, maternity, study and sick leave
- agreed specimen turnaround time, from receipt of specimen, (at which point the laboratory assumes full responsibility), to availability of results
- provision of scientific advice
- risk management and clinical governance
- support and opportunity for undertaking continuous professional development(CPD) relevant to practise
- training and assessment of competence

Data should be maintained and highlight any drift in the above criteria

- Any workload measurement and management system needs to be able to respond to external factors such as an increase or decrease in workload requests, changing patterns of work (extended days, shifts), new working arrangements, service reconfiguration and new training requirements.
- Availability of service is a key consideration. There needs to be sufficient trained and qualified staff available at all times to ensure continuity of service and to operate within agreed performance and safety criteria.
- Methods used for measuring and managing workload and to enable workforce planning must be reliable and easy to use. They need to be able to take account of current activity or any back-log of work that exists within the system and also the capability of the workforce, the skills and competencies needed to deliver the service.
- Any result using a numerical formula to demonstrate an insufficient staff to workload ratio would require justification in terms of detriment to patients, loss of service or unacceptable professional standards. Key indicators such as inputs, outcomes and resource consumption of the service delivery should therefore be identified in order to address questions when evaluating the risk of a service that is considered to have insufficient or inappropriate staff.

- To identify the appropriate staff number and skill mix required to deliver a service, raw workload statistics alone are rarely sufficient. Other essential elements that need to be factored in are those of quality and audit, health and safety, training, leadership and management. These factors, in combination with the sample workload, constitute the clinical laboratory service.
- Reference should be made to comparative data, regulatory and quality standards and the *Institute's Good Professional Practice and Code of Conduct*.
- Audit timetables that are not being followed or are delayed, and also significant delays in clearing non compliances (from audits or incidents), are a sign that the quality management system may be under-resourced.
- Failure to maintain an adequate quality management system will lead to failure to maintain Clinical Pathology Accreditation and/or Medicines and Healthcare products Regulatory Agency and/or Human Tissue Authority compliance.
- Failure to maintain adequate levels of training and competency assessments are a sign that the laboratory may be under-resourced and the quality of the service is at risk.

Training and education

Training and development is an essential and integral aspect of a laboratory service. This does not simply apply to new members of staff or training for existing staff on new tests or equipment but is an ongoing feature of continuing professional development, competency to practice and as such has a direct relationship with quality of service.

Training must also be taken into account when planning changes to workload or reconfiguration of service. Each laboratory must ensure that responsibility for training is undertaken by a fully supported, appropriately qualified and competent biomedical scientist. (Please refer to the Institute's *Guidance on the Management of Training in the Clinical Laboratory* for further information).

All biomedical scientists have a professional obligation and a duty of care to ensure that they maintain their professional standards, integral to which is the provision of training to grades and groups of staff as required. This is essential to:

- maintain and develop the quality of service to ensure that it is compatible with laboratory accreditation requirements
- ensure a workforce that is fit for purpose
- meet the Health and Care Professions Council's Standards of Proficiency for Biomedical Scientists
- maintain professional standards as set by the Institute of Biomedical Science

Leadership, management and organisation

The exact requirements for laboratory management and organisation depend on the type and size of the laboratory. It is recognised that local management arrangements will affect significant differences in systems of working, particularly those involving extended working days, shifts or flexible working. Irrespective of the working arrangements there must be sufficient number of staff to meet the demands of the service with an adequate number of staff in a supervisory capacity to lead, organise, train, give professional direction and to provide scientific advice.

Senior biomedical scientists with management, training or quality responsibilities must be allocated sufficient resources to perform their function and be given the authority to act when there is evidence to demonstrate that resources are inadequate to maintain service quality standards and therefore put patients at risk. The Institute of Biomedical Science recommends that these staff have job plans, which clearly indicate the time allocation to undertake these management responsibilities. In addition to an employment responsibility to undertake a particular role, biomedical scientists have a professional responsibility to draw attention to circumstances that might compromise patient safety, or their ability to perform in the best interests of the service.

Quality assurance and clinical audit

Quality control and clinical audit, like training, are also essential elements of laboratory workload, not optional extras. As such this too must be taken into account when planning any increase in workload or reconfiguration of service. Responsibility for satisfactory involvement in these areas should be undertaken by a designated senior grade biomedical scientist. There should be sufficient staff with appropriate experience to ensure that each laboratory will be able to participate fully in recognised quality assurance schemes and to meet the minimum quality standards for laboratory accreditation.

Health and safety

There is extensive legislation with which laboratories are required to comply. There should be an appropriately qualified individual of sufficient seniority in each speciality, supported by appropriate training and time allocation, to regularly audit compliance with the health and safety requirements of the service. Each laboratory should have an overall safety co-ordinator and provide staff time for this activity.

Research and development

Requirements for research and development may vary between laboratories depending on service needs and funding and are directed ultimately by the resources available. However, the needs of the research and development portfolio of laboratories must not impinge on the service needs of the laboratories. Senior management must ensure that the appropriate balance between the two aspects of laboratory work are maintained at all times.

Advice on action when staffing and workload issues may compromise patient safety

If a biomedical scientist has concerns that established staffing levels and/or skill mix are inappropriate for the workload they are employed to manage such that patient safety is, or may be, seriously compromised, and they are able to substantiate these concerns, the following action should be taken:

- identify the area(s) and nature of risk,
- provide written information to their accountable manager of the areas in which there is concern, identifying the relevant workload and quality issues supported by appropriate evidence,
- if possible, offer options by which the issues may be addressed during short-term remedial action and for longer term workload management strategy.

If an employer does not take adequate action, independent advice should be sought on taking the matter further. All concerns and the steps taken to try to resolve them must be recorded in full detail.

Full information on quality, performance and how to raise concerns can be found in the Institute's *Good Professional Practice*.

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