GENERIC ROLE DESCRIPTOR
GUIDANCE FOR EMPLOYERS TO GENERATE SPECIFIC JOB DESCRIPTIONS FOR CONSULTANT CLINICAL SCIENTISTS

Introduction

This role descriptor is designed to help employers generate specific job descriptions for consultant clinical scientists (CCS). It incorporates essential principles from the document *Good scientific practice*, which articulates the standards and values that apply throughout an individual’s career in healthcare science, at every level of practice.

Role overview

The CCS has ultimate responsibility for the integrity of the scientific and technical knowledge base applicable to their specialty and its integration into practice, at a level of accountability comparable to that of consultant doctors. The CCS also provides an exemplar of good scientific practice standards and leads on their local implementation.

In addition to making a personal contribution to patient care, often practising and advising at the complex end of the care spectrum, the CCS takes a system wide view of healthcare to ensure effective patient outcomes and that safe and effective care is designed, delivered and improved. The CCS provides highly developed and advanced clinical scientific expertise, advice and interpretation, they:

- direct and manage a range of complex clinical/scientific services, including staff and budget management
- provide strategic direction and expert leadership
- support patients and their carers, ensuring patient-centred care is delivered
- ensure applied scientific solutions meet the needs of multi-professional clinical care teams, the organisation and the wider health community
• enable the interpretation of and compliance with relevant local, national and international scientific care and best practice standards. These should include the Care Quality Commission’s fit and proper person’s requirements.

The CCS plays a pivotal role in bringing to life the vision and values articulated in the NHS Constitution, which requires organisations to continually learn, adopt best practice and ensure healthcare is delivered at the limits of science. The scientific method practiced by the CCS recognises the need to continually learn and adapt services in the light of experience. Additionally, they understand the requirement to generate new knowledge and apply it, via new techniques and technologies. CCSs personally undertake and contribute to research and innovation projects and ensure that such activities are undertaken as an essential core activity within their scientific services. Consequently the CCS contributes to the strategic development and direction of the organisation so that the added value of clinical science services and their impact on patient care is fully realised.

The CCS demonstrates leadership skills in ensuring scientific services develop to meet the prevailing challenges of their healthcare community and will frequently contribute to department and wider organisational management roles. They also undertake training and education and engage in workforce planning.

The CCS will take on different roles throughout their career and the proportion of the above activities will vary with time. It is, however, essential that all CCSs have the capability to undertake all of the elements of the role outlined above.

Professional practice

Working across the healthcare system on behalf of patients, the CCS influences all elements of the health system. They focus on patients and carers and the team around the patient, including the organisation in which the team works, as well as taking account of the wider political and national health system context. The CCS takes responsibility for all areas of professional practice within their service, including workforce training and development.

CCSs are the guardians of scientific standards within their service and take ultimate responsibility for the integrity of the scientific knowledge base and its application to underpin care delivery.

In terms of their personal contribution, the CCS often works at the most complex end of the clinical/scientific spectrum of service delivery.
The CCS ensures services are outcome focussed and reviews services to ensure continual improvements are made. CCSs are well poised to digest information from a diverse range of sources and use this to help the organisation learn from experience and develop more effective ways of working. They investigate incidents and contribute to root cause analysis and remedial action, both within their organisation and at national level.

CCSs help to design and deliver training programmes, contributing to national curriculum development and the introduction of new schemes. For example, the existing CCS workforce significantly contributes to the design, development and implementation of the current MSC training programmes.

Responsibility for promoting a progressive learning environment for staff within the service is key for CCSs. They develop a strategic approach to the provision of appropriate training programmes for the breadth of the scientific workforce and contribute to training other groups of staff within healthcare.

The CCS also participate in the design and delivery of clinical scientific and technical teaching, training and assessment of peers, undergraduates, post-graduates and other healthcare professionals within relevant scientific areas of practice, using effective methods of learner-centered feedback. This includes acting as a role model at all times and providing mentorship to individuals.

**Scientific practice**

Working at an expert level, the CCS has the ability to understand and apply current and developing scientific techniques safely and effectively.

In addition to keeping up to date personally, the CCS has ultimate responsibility for the currency and integrity of the scientific and technical knowledge base of their service, together with its ongoing validity in clinical practice. This responsibility extends to the pro-active gathering and critical review of evidence to ensure that processes and systems are producing effective outcomes and the organisation is learning from experience. It entails an overall responsibility for ensuring:

- risks to patients are minimised
- effective management of all risks
- compliance with clinical governance standards
- compliance with prevailing legislation
- relevant service accreditation standards are achieved.

The CCS takes responsibility for developing investigative strategies, procedures and processes that take account of relevant clinical and other sources of information. While critically evaluating and interpreting evidence, planning and managing audits, the CCS also undertakes benchmarking and
applies outcomes to lead changes in service. The CCS also provides complex scientific advice to ensure the safe and effective delivery of services and undertakes scientific investigations using qualitative and quantitative methods to aid service delivery as appropriate to their expert role. CCSs act as advocates for the scientific collection of an evidence base in their areas of work and its application to inform clinical judgement and improve patient outcomes.

The CCS understands the principles and practice of equipment and methodology used in their scope of practice and ensures new technologies are assessed and evaluated prior to use. Identifying and managing sources of risk and ensures good health and safety practice in all aspects of their area of work. They ensure quality is continually improved and assured across all clinical, scientific and technological activities and make complex judgements on the effectiveness of processes and procedures. In addition, the CCS will specify and implement on-going compliance with appropriate service accreditation schemes.

Clinical practice

The CCS leads specialist multi-professional scientific teams and works with colleagues across organisational boundaries to develop, promote and participate in a multi-professional approach to patient management. The CCS provides, as appropriate to their role, consultant level clinical scientific advice, including interpretation of investigations and their outcomes, therapies and their implications for patient care and management, and recommendations for additional or more complex investigations.

Where CCS have a direct patient contact role they:

- play a direct role in the management of complex patients, as part of a multi-professional team, including assessment of the patient’s relevant history, developing an investigation strategy, interpreting results and agreeing a management and treatment plan in partnership with the patient, medical staff and the rest of the multi professional team
- work with colleagues across organisational boundaries to develop, promote and participate in a multi-professional approach to high quality patient care and management
- in appropriate circumstances and within the context of particular and defined clinical circumstances, impart scientific results to and discuss with patients or their families, investigations, risks and outcomes that may be highly sensitive, emotive or have serious prognostic implications, recognising that the responsibility for the overall care of the patient rests with the accountable medical consultant
- respond positively to and promote new developments that enable patients to have greater access to information about their care.
The contribution of the CCS is not only to personally deliver clinical/scientific services, often at the complex end of the care spectrum, but also to constantly review the appropriateness of service provision to ensure that outcomes are effective when benchmarked against other organisations and best practice is adopted in a timely manner. In order to do this effectively, the CCS has expertise in the assessment of patient outcomes in order to assess the efficiency of healthcare interventions.

**Research, development and innovation**

The CCS is influential in developing learning organisations via the creation and analysis of data and interpretation of knowledge, generates learning opportunities and undertakes system change. The CCS applies this concept to optimise organisational performance leading to safer services, lower costs and better outcomes.

Additionally the CCS leads on the development and implementation of strategy for their service, developing a culture that values and supports innovation and quality by promoting and stimulating research and innovation both within the service and across service boundaries.

Horizon-scanning and identifying opportunities for the organisation is important for a CCS to undertake in order to embrace new techniques, technologies and ways of working to support adoption of best practice and minimisation of national variation in practice. The CCS therefore remains abreast of new knowledge and assesses its applicability to the local healthcare community, initiating further work as required to translate research and evidence into clinical practice across the local health system.

The CCS critically evaluates and reviews service performance against patient outcomes to improve and extend the knowledge base, conducting personal research and supervising others. The CCS is typically integral to overseeing the research strategy for their service, applying for grants to initiate and support projects and ensuring compliance with research governance.

CCSs present and publish personal research at scientific meetings and in peer reviewed journals, and may lead multi-disciplinary reviews and other innovation initiatives. They initiate policies and changes to policy and practice in the light of evidence and changes to relevant legislation, regulation and guidance.

CCSs act as advocates to their clinical colleagues for the scientific collection of an evidence base and its application to inform judgement and improve clinical outcomes.
Leadership and management

An over-arching element of the CCS role is to take a proactive approach to change, ensuring that healthcare is delivered at the limits of science. This requires visionary leadership to see how things can be done differently and to deliver service change for patient benefit. This leads the CCS to continually review the workforce and service repertoire to determine whether they meet current healthcare needs, redesigning elements as required. The CCS must therefore be an effective leader, understanding and applying principles of strategic leadership to successfully initiate, manage and sustain change aimed at improving patient outcomes.

CCSs lead by example, demonstrating scientific leadership across broad areas of clinical science services. In due course they may take on wider organisational roles such as clinical director, research and development director or lead scientist, as well as being an ambassador for healthcare science across the health community and beyond.

The CCS leads and motivates clinical scientific staff to ensure effective delivery and achievement of service objectives in a changing healthcare environment, ensuring that the scientific culture of the service is such that all healthcare scientists embrace the principles and practice of good scientific practice in their working lives. Specifically, the CCS:

- carries out complex planning of service delivery and future direction
- provides staff with clear job roles and responsibilities
- provides support and opportunities for staff to maintain their health, wellbeing and safety
- engages staff in decisions that affect them and the services they provide
- ensures that services give best value, making effective, fair and sustainable use of resources
- provides appropriate leadership within an area or areas of clinical scientific practice at a national or international level
- takes responsibility for budget management and accountability for delivery of financial plans and associated cost improvement plans and human resources management.

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