# Application for the Regulation of Clinical Photographers by The Health Professions Council

**Summary Document**

Submitted by the Committee for the Accreditation of Medical Illustration Practitioners (CAMIP)

July 2004

## Part A: Statement of Eligibility for Registration

Medical Illustrator is a generic name for those healthcare professionals who work as clinical photographers, video producers, medical artists and graphic designers. They provide a multi-skilled support service to those involved in patient care, teaching, education and research in the health sciences.

This application concerns Medical Illustrators specifically who are clinical photographers and video producers responsible for making clinical recordings of patients using still and moving pictures. It is anticipated that their protected title will be that of "Clinical Photographer".

Clinical photographers and clinical video producers should be regulated in order to protect patients. Qualified clinical photographers undertake their work unsupervised and unaccompanied (unless a chaperone is required). In addition to their photographic skills and qualifications, clinical photographers must have sufficient medical knowledge to be able to discuss and interpret the clinician's requirements, manage patients during the photographic session and select and undertake the necessary photographic techniques best suited to the task.

Clinical Photographers are required to have direct physical contact with patients. This may be in the form of providing physical support during photography or using their hands to 'position' patients during photography, or it maybe introducing instruments (mirrors, retractors) into patients' mouths during dental photography or retracting eyelids and administering eye drops prior to ophthalmic photography. As well as dealing with people who are physically unwell, many patients are psychologically vulnerable – a patient may readily accept the need for an X-ray, but find it difficult to understand the value of having to undress and have a photograph taken. Clinical photographers require empathy and an understanding of patient concerns.

Clinical photographs are unique among patient records as being instantly recognisable and understandable by the overwhelming majority of the population as they represent a direct likeness of the subject. For this reason the importance of the duty of care to ensure that proper consent and confidentiality procedures are in place (and complied with) is heightened, and often falls to the clinical photographer. The consequences of clinical photographs being inadvertently used beyond the purposes for which the patient has consented, or worse still deliberately misused, can be far reaching. Clinical photographers understand the complexities of security, storage and retrieval of clinical images (especially in the digital environment) and the implications of the relevant legislation such as the Data Protection Act (1998) and the Copyright, Designs and Patents Act (1988).

## The occupation must cover a discrete area of activity displaying some homogeneity

Clinical Photographers are healthcare scientists responsible for recording visual aspects of the patient's condition or treatment using still and moving pictures. Such pictures will form part of the patient's case note record and may also be used for audit and governance purposes, or used to educate other healthcare professionals. Clinical photographers are not only skilled in the science and practice of photography itself, but will also have sufficient training in anatomy and physiology to be able to understand the patient's diagnosis, converse with medical colleagues and interpret their requests. While photography is not exclusive to clinical photographers and it is current practice for a range of other healthcare professionals to photograph patients, it is not central to their role and they will almost certainly not have received any training.

Although not diagnostic in themselves, clinical photographs are often used as supporting evidence when diagnoses and clinical decisions are made. There is one photographic procedure (fluorescein angiography) which is a diagnostic test for a number of ophthalmic conditions. In this test fluorescein (which is a dye that fluoresces under ultraviolet light) is injected into the patient's bloodstream and is photographed, as it passes through the microcirculation of the patient's eye, using a special retinal camera.

The strength of clinical photographs lies in their ability to provide accurate recordings of a patient's appearance. As such, clinical photography can be useful to (and is used by) all branches of medicine and to record patients of all ages. Accurate serial photographs mean that images (and therefore progress of the condition or treatment) can be compared objectively over a period of time. Examples of this include changes in the appearance of a rash where a course of topical treatment has been applied; and changes to a leg ulcer or trauma site as it heals.

Sometimes pre-operative clinical photographs are used to help plan and assess the likely appearance of the patient after surgery. An example might be plastic surgery to the jaw, where accurate life size photographs can be 'cut up' to help plan the operative procedure and judge the surgical outcome. Post-operative photographs can be used to help other patients in understanding and coming to terms with their surgical outcome. In breast reconstruction for example, sharing the likely outcomes with patients in advance can lessen the traumatic nature of surgical intervention following radical mastectomy and can often be a major factor in the speed and degree of recovery.

The psychological impact on patients of the photographic process itself should not be underestimated. Patients will readily accept the need for x-rays and other tests, but may well find the thought of having their medical condition photographed, while at low ebb and in a state of undress, difficult to come to terms with. This is particularly true in situations where the patient may feel embarrassed or distressed, such as when there is a need to photograph genitalia. Clinical photographers are trained to deal with such situations and must demonstrate enormous sensitivity, empathy and tact, working quickly and efficiently to minimise anxiety.

As well as conventional photography methods, clinical photographers are experienced in using a range of specialist techniques to demonstrate the signs of disease to the best advantage. These include photography using the invisible spectrum (infra red and ultra violet), photomicrography and macro-photography.

There are occasions where photographs taken by the clinical photographer may be used as evidence in a court of law, for example in a case of 'non-accidental injury' to a child. The clinical photographer must be prepared to face cross-examination as an expert witness. Whilst these situations are currently not very frequent, potentially any clinical photograph could be required as evidence in a litigation context.

Clinical photographers mostly work alone with the patient, unless a chaperone is required, and often have to physically position their patients in order to achieve the desired result. Examples of this might include positioning a patient's head or retraction of eyelids during photography. Sometimes in order to achieve the 'best' view the clinical photographer will use accessories, including dental mirrors and lip and cheek retractors. As well as being appropriately sterilised, such devices must be handled safely by clinical photographers as they come into direct contact with the patient.

As photographs are commonly understood by everybody, then in order for them to be used as medical records it is necessary for clinical photographers to pay particular attention to confidentiality (including storage and retrieval systems for the images) and ensure proper consent procedures are followed. Non-medical illustration staff are unlikely to fully understand the related legal issues, such as Copyright and Data Protection. Ownership of images taken by non-medical illustration staff is not often clear and Trusts may have difficulty managing and protecting such images when the members of staff who took them leave their employment. Worse still the hospitals may not even know of their existence and therefore fail to produce them for disclosure when required. (This is a statutory requirement under the Data Protection Act).

## The occupation must apply a defined body of knowledge

The defined body of knowledge of clinical photography is inextricably linked to the knowledge and history of photography itself, coupled with its application to medicine. Whilst other disciplines are concerned with imaging the patient internally (radiography, endoscopy etc.), clinical photography has developed as a discipline that records the outward appearance of disease and its processes using still and moving images. As such there is little overlap with any other discipline.

The first application of photography to medicine appears to have been in the field of photomicrography circa 1839, where Alfred Donné was reported to have exhibited the apparatus for making individual daguerreo types (an early type of photographic process).

Some of the earliest clinical photographs were made by portrait photographers and therefore many of the conventions employed in these early photographs were those used in paintings and drawings for portraits and domestic scenes. It is generally accepted that the earliest clinical photograph on record is a calotype (an early type of photographic process) of a woman with a large goitre, taken by Hill and Adamson, circa 1847, in Edinburgh.

The pioneering experiments in the photography of motion were conducted by Eadweard Muybridge who published a series of plates of abnormal gaits in a book on locomotion in 1887 (*Animal Locomotion*). This monumental work of eleven volumes contained hundreds of tables in which the various stages of human and animal movement are illustrated.

The first photographic department to be established within a hospital was in France at the Clinic for Diseases of the Nervous System at the Salpetriere Hospital in Paris. The neurologist J. M. Charcot created the Photographic Service Laboratory and appointed Albert Londe as director in 1882. Londe went on to achieve international stature not only in the field of photography but also in his specialisms in medicine and radiology. In 1893 he published the first book specifically on medical photography, *La Photographie Medicale*. It is dedicated to Charcot, whose stated belief was that photography was not only important to medicine but that its importance would increase in the future.

However, it was not until the immediate post-war years that the real establishment of organized clinical photography in Britain took place and new departments of 'Medical Illustration' (encompassing clinical photography and medical art) were established in most major London hospitals within eight years of 1945.

A professional journal of medical illustration was first published by the *British Medical Journal* (BMJ) division of the BMA in January 1951, as *Medical and Biological Illustration* (M&BI). The journal (which is still thriving today as the *Journal of Audiovisual Media in Medicine*) was devoted to all aspects of clinical photography and medical art, and helped to crystallize the notion of medical illustration in Britain as a distinct paramedical profession.

The range of activities now undertaken in a typical medical illustration department in a hospital or university medical school is diverse. Digital technology has revolutionized both clinical photography and medical art and medical illustrators have embraced, and become experts in, new communications technologies such as the World Wide Web

and Telemedicine. In short, medical illustrators are the people who know how to use combinations of communications media to best effect in the service of medicine. Yet at the heart of all this, clinical photography with one-to-one interaction with the patient, remains the core activity.

## The occupation must practise based on evidence of efficacy

Good science is founded on repeatability of experiments. Medical photography was developed as a discipline at the same time as the NHS itself. Many of the founding fathers were themselves medically qualified doctors who saw the benefits that good standardised and therefore repeatable photography could bring to the treatment of their patients and to research derived from that treatment. Clinical photographers are trained to manage not only scale and viewpoint, but also now, when most clinical records are made digitally, to manage colour so that the photographs are consistent from occasion to occasion. This is particularly important when recording skin conditions such as melanoma where colour change can indicate developing malignancy.

As well as being used in treatment and research, photography provides a significant diagnostic tool, using either invisible radiation (Ultraviolet and infrared) to make visible records of conditions invisible to the naked eye or fluorescence techniques to record conditions which are both invisible and transient and provide a basis for diagnosis and treatment planning.

Serial recording of conditions whose appearance changes is important so that the different doctors caring for the patient over a period of time can have access to accurate standardised clinical records.

Standardisation is important if clinical photographs are to be useful in the care of the patient for a number of reasons:

- Direct comparison of serial records is only possible if they are made to known standards.

- Clinical Audit between cases within centres and between centres for major specialist treatments such as cleft lip and palate is only possible if consistent standardised photographs are available.

- Increased levels of litigation in the NHS demand that high quality records are maintained to protect both patients and Trusts. Non-standardised photography which cannot be validated in court weakens everybody's case.

While historically standardisation was based on clearly defined views and scales which were taught to all medical photographers, the profession has started to develop condition specific photographic recording protocols to match current requirements for national clinical audit. These are now complete for cleft lip and palate, scoliosis, mole mapping and non-accidental injury, and others are in preparation.

Underpinning the contribution of clinical photographers to the care and management of patients are a number of quality standards, ranging from NOS - which apply to all Healthcare Scientists and to which the medical illustration profession has totally committed itself - to other national standards such as Chartermark, ISO9001:2000 and Investors in People as well as the Institute of Medical Illustrators' own voluntary Quality Assurance Scheme which is now available to all medial illustration departments in the UK after a successful trial period.

## The occupation must have at least one established professional body which accounts for a significant proportion of that occupational group

As a result of a survey carried out by IMI in 2001, it is estimated that there are approximately 971 practitioners currently working as medical illustrators in the UK comprising approximately 696 Clinical Photographers, 150 Medical Artists & Graphic Designers and a further 125 working in support roles (IMI Census Results 2001).

There are currently three professional bodies representing medical illustrators and these are brought together by The Committee for the Accreditation of Medical Illustration Practitioners (CAMIP) which is an independent umbrella organisation which was established in 1990 with the prime aim of regulating the profession. CAMIP's directors are appointed from nominees from the three professional bodies, which are: the British Institute of Professional Photography (BIPP), the Institute of Medical Illustrators (IMI) and the Medical Artists' Association of Great Britain (MAA). Together they represent approximately 50% of practising medical illustrators. In addition to the Directors (who have voting rights), CAMIP has a number of (non-voting) advisory members from the Royal College of Physicians, the Royal College of Surgeons, the Royal College of General Practitioners and the Royal College of Pathologists.

The Institute of Medical Illustrators (IMI) is currently the largest professional body representing photographers, videographers, artists and graphic designers working in the healthcare environment, with a membership of 382. The organisation, which was formerly known as the Institute of Medical and Biological Illustrators (IMBI), was formed in 1968 'as a professional body dedicated to achieving the integration of all forms of illustrators working in the fields of medicine and biology'. Its stated objectives were to encourage and improve the employment of illustration in clinical practice and medical education by means of the dissemination of information and the creation of a qualifying body which would be responsible for standards of conduct. The IMBI also offered itself as an advisory body to other institutions, and more generally worked to raise the profile of medical illustrators as a distinct group of professionals with its own specific practical and ethical problems within the health-care environment.

The British Institute of Professional Photography (BIPP) was founded in 1901. The BIPP, originally called the Professional Photographers' Association, is presently the United Kingdom's qualifying body for professional photographers and technicians. The Institute represents the photographic industry to Government and also educational colleges as the leading voice in the profession. Members represent all fields of specialisation within photography, including medicine. They abide by the Institute's own Code of Professional Conduct which may be enforced, when necessary, by disciplinary action. A governing Council is appointed every two years. There are fourteen councillors, some of whom are elected by the membership; others are Chairmen of Standing Committees. Occasionally Councillors may be co-opted for a specific purpose.

The Medical Artists' Association of Great Britain (MAA) was formed in 1949. Its objectives were; to be recognised by the medical profession of Great Britain as the only association representing British medical artists; to safeguard the professional status of qualified artists in institutions and to raise the standard of medical art. The Medical Artists' Association received the patronage of the Worshipful Company of Barbers and became a company limited by guarantee in 1990.

CAMIP's constituent organisations have a long history of working together and at its AGM in 2003, the Board of Directors agreed to commission IMI, as the largest body representing medical illustrators, to prepare an application for registration under the Health Professions Council on its behalf. In May 2004 CAMIP conducted a ballot among

Clinical Photographers asking whether they supported such an application. Of the 685 forms sent out 370 (54%) were returned. Of those, 358 (97%) were in favour of the application.

CAMIP are currently finalising a Grandparenting Scheme to encourage those practising medical illustrators currently not on the Voluntary Register to apply. The scheme will be launched in September 2004.

## The occupation must operate a voluntary register(s)

Medical Illustrators have – ever since the profession became formalised in the early days of the NHS – been concerned to demonstrate their professional standards.

In the early years, this was the responsibility of the professional bodies – the British Institute of Professional Photography and the Medical Artists' Association of Great Britain – which exercised rigorous control of those they admitted to membership.

More recently, a formal voluntary register was established (1990) by joint action of the four professional bodies that by this stage represented medical illustrators (BIPP, MAA, the Institute of Medical Illustrators (IMI) and the Ophthalmic Imaging Association (OIA, formerly the British Ophthalmic Photographic Association). This number was reduced to three in 2004 when OIA redesignated itself as a Learned Society and committed to seeking registration for specialist ophthalmic photographers under the umbrella of the Association of Health Professionals in Ophthalmology.

The voluntary register is run by the Committee for the Accreditation of Medical Illustration Practitioners (CAMIP).

Entry to the Register is open to all medical illustrators qualified to the high standards set by the professional bodies: registrants are bound by a code of conduct and regulated by a formal disciplinary process

IMI conducted a census of medical illustrators in 2001 which indicated that of the 378 medical photographers and 67 medical artists or graphic designers who were then in practice and were qualified to enter the register, 310 and 40 respectively had done so.

The 2001 census identified 73 trainee medical photographers and artists and a further 343 current practitioners who do not hold sufficient formal qualification for entry to the CAMIP register.

Of the 343 about 40 were support workers and most of the remainder were medical photographers (the others were in the graphics disciplines not covered by this application) who had entered the NHS before formal qualifications were required. The vast majority of these medical photographers will be able to demonstrate that they have been in safe practice for many years that they have maintained and developed their skills.

In order that these practitioners can have the opportunity to join the voluntary register, the Directors of CAMIP have developed an "Application by CV" process which will enable them to do so provided they can demonstrate currency of knowledge and skills and safe practice for at least three of the last five years.

There is a clear thirst for formal state registration amongst medical illustrators: a recent ballot of 685 medical photographers showed that an overwhelming 97% of those who returned their papers (54%) were in favour of this application. Many of these have indicated that they will seek to enter the CAMIP voluntary Register when the "Application by CV" route is available.

## The occupation must have defined routes of entry

There are well-defined routes of entry into the profession for clinical photographers, largely because there are only two Higher Education institutions at this time which offer specialist medical illustration qualifications.

The profession has provided a qualification route for aspiring clinical photographers since 1951 when the Institute of British Photographers (now the British Institute of Professional Photography [BIPP]) offered the Final Examination in Medical Photography.

Since the mid 1990s the qualifying standard has been set at degree level, although some practitioners have found it possible to progress with lesser qualifications, but this has tended to be in hospitals where recruitment and retention are a particular difficulty and has happened against the advice of the professional bodies.

Entry route 1 - aspiring clinical photographers who have no relevant qualifications are advised to undertake an HND in Photography (available from a wide range of colleges) followed by the full time BSc in Medical Illustration from Glasgow Caledonian University.

Entry route 2 - aspiring clinical photographers who already have an HND in Photography are able either to take the full time BSc in Medical Illustration (as above), or secure a full time post as a Trainee Medical Photographer and undertake the part time BSc in Medical Illustration from Glasgow Caledonian University (a distance learning course).

Entry route 3 - aspiring clinical photographers who already have a degree in Photography (available from a wide range of colleges) are able to secure a full time post as a Trainee Medical Photographer and undertake a part time Postgraduate Certificate in Medical Illustration from the University of Wales

Aspiring clinical photographers who do not fit neatly into any of these categories (e.g. who have other photographic qualifications) can apply to have an AP(E)L assessment to determine the best course of action to meet the profession's requirements for entry.

Medical illustration qualifications are not benchmarked by the QAA at this time. However, because graduate entrants will have undertaken a photography qualification, those qualifications will be benchmarked by either the Art & Design benchmarks or the Communications, Media, Film & Cultural Studies benchmarks.

Having recently gone through the process of developing National Occupational Standards for Healthcare Scientists in Medical Illustration it seems logical to the profession that benchmarking for its qualifications is the next step.

## The occupation must have independently assessed entry qualifications

There are currently two institutions that offer specialist medical illustration qualifications and it is these that are recognised as the entry level to the profession. In both cases the systems of monitoring and quality control conform to those in place at the individual institutions, which include a schedule of revalidation and review, plus external examination of assignments. Professional bodies are consulted to ensure the curricula are relevant and appropriate, but have no official say in the administration of programmes.

The BSc in Medical Illustration offered by the Glasgow Caledonian University (GCU) came into being in 1996. It was developed from an existing Diploma in Medical Illustration, which IMI launched in 1990. The BSc can be taken as a full-time course lasting two years, with the entry level set at HND in Photography (or Graphic Design for the graphics track). Up until recently the Glasgow College of Printing has been the 'feeder' for this course, providing students with the requisite HND in Photography, but currently HNDs from other courses are acceptable. During the two-year course students spend several blocks of time on work placement in approved medical illustration departments.

The BSc can also be taken as a part-time, distance-learning option, lasting three years, again with the entry set at HND. To be eligible students must be in full-time employment in a medical illustration department. An assessment of the candidate's workplace is carried out in advance of acceptance onto the course, to ensure they have the necessary facilities to be able to complete the course, coupled with the support of their Head of Department.

Essentially the curriculum for the two courses is the same. The courses are managed according to GCU rules and regulations and whilst some of the members of the Programme Board and some of the tutors, markers and assessors are also IMI members, they are appointed independently of IMI by GCU and work accordingly. The courses are subject to the GCU timetable of revalidation, which is next due in 2005/6.

The University of Wales has two postgraduate courses in medical illustration run by the University of Wales College of Medicine (UWCM). The Postgraduate Certificate in Medical Illustration has been running since June 2003 and is designed to offer an independently-assessed, registrable qualification to aspiring clinical photographers who already have a degree in photography. The course was developed primarily to support the Medical Photographer Training Programme run jointly by the Medical Illustration Education Department of the School of Healthcare Studies UWCM, and the Media Resources Centre at the Cardiff and Vale NHS Trust. This programme is funded by the Welsh Assembly Government. The course is a 15-month distance learning programme and students must be employed full time in a medical illustration department.

While both IMI and BIPP had representation at the original validation panel in May 2003, the professional bodies have no connection with this course.The Medical Illustration Education Department also runs an MSc in Medical Illustration. Whilst aimed at experienced medical illustrators, it can also be an entry qualification for somebody not on the CAMIP Voluntary Register. The MSc has been running since 1990 and is due for revalidation in 2004.

It should be noted that The University of Wales College of Medicine and Cardiff University are due to merge in August 2004.

## The occupation must have standards of conduct, performance and ethics

Of all medical records, clinical photographs have the greatest potential to do harm to the patients they illustrate if inappropriately used. They are the only form of clinical record that is immediately recognisable to others as it represents a direct likeness of the subject. Many clinical photographs include faces and other recognisable features – tattoos, for example. Full length images of naked patients are sometimes required to illustrate the condition: these can be not only recognisable, but also distressing if viewed outside their original context.

While it was never easy to totally protect traditional clinical photographs from inappropriate use, it is even more so now they are made digitally: the major benefit to clinicians is that a digital record is immediately and easily available. Conversely, the very ease with which it can be widely distributed electronically adds significantly to the responsibilities of the clinical photographer to protect it.

Clinical photographers operate within the framework set out by the Data Protection Act, the Copyright Act and the Caldicott Report to ensure that the personal data they handle and create is appropriately protected.

Clinical photographers are particularly concerned with consent issues to ensure that their patients' recognisable data is not used either inappropriately or in ways that fall outside the terms of the informed consent to which they have agreed.

Clinical photographers have a duty of care to the patients with whom they deal. Not only does this concern the physical treatment of the patient and their protection from harm, for example by cross infection or by injury in the clinical photography studio, it also relates in many cases to cultural and ethical aspects of the care. For example in some faiths or cultures it may cause offence for the photographer to request removal of clothing, wigs or jewellery for the purposes of clinical photography.

Clinical photographers in training undertake a structured study of these issues.

Clinical photographers who are members of a Professional Body or of the CAMIP voluntary register are bound by a Code of Professional Conduct. In addition, IMI has published a Code of Responsible Practice which deals with consent issues (and which has been referenced by the NHS in consent matters), its journal carries articles on these issues and a National Protocol on ethnic and religious issues for clinical photographers is to be published on 8th September 2004.

## The occupation must have disciplinary procedures to enforce those standards

The three Professional Bodies within CAMIP (BIPP, IMI and MAA) all have established disciplinary procedures, as indeed does CAMIP.

Medical Illustrators who default on the high standards of professional practice laid out in this application may be subject to discipline or removal from membership either of the Professional Body or of the Voluntary Register.

In each of the bodies the disciplinary process is invoked when it is believed or proved that a member has been involved in inappropriate conduct or has been convicted of a criminal offence or has received a police caution.

Medical Illustration is a small profession and the IMI Disciplinary Committee is the only one to have been convened in the last five years, and this only once.

## The occupation must require commitment to continuous professional development (CPD)

Whilst CAMIP currently does not have a scheme, IMI (the largest of the constituent bodies) has been running its Continuing Professional Development (CPD) scheme since September 1998. The pilot programme ran for two years and the scheme went live in September 2000.

Since January 2003 the scheme has been compulsory for all qualified members, who were provided with a certificate of CPD, valid for two years. During this period members are required to keep an accurate log of all CPD activity. The required amount of CPD activity has been set at 45 hours over each two-year period and a point system has been developed as a guide to achieving this. All CPD activity is recorded in a Personal Portfolio as outlined in the CPD handbook. IMI has also made it clear to members that reflective writing is an integral part of their portfolio and that each activity must be accompanied by a brief written record of how it benefited their professional development.

In order to ensure that the CPD is meaningful it has been stressed to members that it must be linked intrinsically to a personal development plan within their current employment. The main thing to gain from this process is a clear identification of how someone is going to develop their career and any skills gaps they may have for fulfilling their current job. Once this is completed members can begin to identify, with their manager, appropriate training, courses, meetings, and self-development activities to meet their CPD objectives.

The following resources have been provided to help members to achieve the required amount of CPD and to produce meaningful personal portfolios.

- A CPD handbook explaining the process in detail
- Instructions on how to prepare a personal development plan
- An on-line guide showing how to produce a personal portfolio. This includes examples of good practice, advice on reflective writing and external links to a variety of useful resources
- Activity sheets providing members with a method of achieving CPD points through self-learning. These are published regularly in the professional journal and on the web site
- Regular regional and national meetings, workshops, seminars and annual conference, covering a variety of topics relevant to our profession

The CPD assessors sample a random selection of portfolios each year and approximately 5% of the membership is targeted on an annual basis. The importance of keeping portfolios up to date has been stressed to members and if portfolios are requested they must be immediately available. Members may of course discuss their portfolio with an assessor to be sure that they are providing the information that is required, and they may do so at any time.

It is anticipated that in the near future CAMIP will adopt the IMI CPD scheme. The scheme is currently available to non members at a nominal cost.