Introduction

Forensic medicine is the medical specialty that is practised at the interface with the law. It involves the assessment and interpretation (of findings) in an individual who has become involved either as a suspect or victim in some form of alleged criminal action. In practice however, the role of practitioners of forensic medicine has widened to include civil jurisdictions and matters of medical ethics.

The term forensic medicine is often used as an "umbrella terminology" to mean forensic pathology and clinical forensic medicine. This paper is directed specifically at clinical forensic medicine which is the practice of assessing the physical condition of the living who allege that they are victims of an assault or examining the alleged perpetrator of the offence. It may cover a wide field of subjects including clinical pharmacology, criminology and traffic medicine.

Organisation

State and Federal police forces employ all of Australia's specialist practitioners of forensic medicine. This is in contrast to forensic pathologists and psychiatrists who are employed by various law and health departments. The majority of casework is performed at the request of police but practitioners in most instances may provide services to other government departments (for example, health and social welfare departments) or to lawyers.

Whether the police force is the most appropriate employing body is questionable. Clearly the medical practitioner must have an intimate knowledge of policing, and in particular, of methods of investigating major crimes. There have however been concerns about the perceived lack of objectivity in such an employer/employee relationship. The assessment of allegations of assault by police or the provision of reports or evidence unfavourable to police, are situations where the independence of the service may come under intense scrutiny.

All of the other medical specialities are focused at the level of an academic department and a professional society whose membership is determined on strict academic standards. The absence of an academic organisation has undoubtedly had negative implications for the structure and functioning of forensic medical services. There is no central body that can provide an advocacy service for forensic medical practitioners at a local, national or international level. The absence of such a body has meant that practitioners are not adequately represented at any appropriate level of decision making, but also that major issues of forensic importance are not disseminated to the various consumers or to the public.

There is little sense of direction, co-ordination or cohesion in the way that forensic medical services are being provided in this country.

Services

The range of forensic medical practice may include cases of physical assault (including domestic violence, alleged assault by police), self-inflicted injuries, non-accidental injuries in children, rape and other sexual offences, fitness to be interviewed or detained, and the assessment of alcohol or drug affected individuals particularly in the area of traffic medicine.
There are some critical issues in service provision that have retarded the advancement of forensic medicine. Firstly, most services are provided by part-time practitioners. These are doctors who are primarily involved in other medical specialities but who provide a forensic service when requested. Only in Victoria and New South Wales are there full-time forensic clinicians. Service provision by part-time practitioners has a number of potential implications, most importantly that the practitioners' expertise may be limited by their experience. Small case loads or exposure to a limited range of cases will significantly handicap the development of expertise. In no other field of medicine are the courts so dependent on the service and skills of part-time practitioners. Unless the practitioners have been appropriately trained, are seeing large numbers of specific cases and exposed to some sort of peer review, their ability to develop expertise must be limited.

This is strikingly demonstrated in the assessment of allegations of child sexual abuse. In this area it is of critical importance that the practitioner has a very clear understanding of the anatomy and patho-physiology of injuries, and the interpretation of findings. In many jurisdictions practitioners are inadequately trained, have no awareness of the current literature, are seeing small numbers of cases, are not documenting their findings with photographs and are not subjecting their findings to peer review: in short the lessons of Cleveland have not been learnt.

Allegations of child sexual abuse are heavily defended in court and guilty verdicts attract heavy penalties. In no other area of forensic practice, policing or the criminal justice system is such a vital role being performed by casual players. The dependence on part-time practitioners is flawed.

Secondly, most practitioners are providing dual services in occupational health as well as forensic medicine. Both areas have become increasingly specialised and to provide a high quality service in both may no longer be feasible. Additionally such a dual role has an obvious potential for conflict of interest.

Thirdly, the legal profession has little or no access to expert evidence in the field of clinical forensic medicine. If an opinion, or more likely a second opinion, is required, a lawyer is inevitably forced to turn to hired guns. The paucity of expertise both for the prosecution and the defence remains a concern.

Finally, the spectrum of work being performed by clinicians in forensic medicine varies enormously between the states. In many centres the type of work is dictated by the interests or skills of the practitioner, the requirements of the employing body, the availability of other services, legislative controls or financial restrictions. In its broadest context, the practitioner would be dealing with any case or situation that required his or her expertise. Whilst clinical forensic medicine should not be divorced from the mainstream of general medical practice, it is apparent that special skills are required in some clinical situations.

In many Australian centres, practitioners' expertise is limited to specific types of cases. For instance, paediatricians may see children when there are allegations of physical or sexual abuse. Practitioners at sexual assault centres may all be involved in assessing adult rape victims. In a "pure" medical practice, this has its obvious benefits but in a medico-legal practice there may be considerable difficulties in having such a narrow theoretical and practical base. An intimate knowledge of the effects of alcohol on behaviour and motor skills may be required in a wide spectrum of assault cases, traffic medicine and in the assessment of detainees. Limited experience in the assessment of atypical findings will be exposed in court hearings and may handicap the presentation of the case.

Little money is being spent per capita on training programs or research. Most of it is misdirected to the individual, and not the system, creating a "Rich Doctor - Poor System Syndrome". The payments to doctors seem unrelated to the complexity of the cases.

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1 These problems were clearly identified in the Report of the Inquiry into Child Abuse in Cleveland H.M.S.O. (1987).
Increasingly, practitioners of forensic medicine (clinical, pathological or psychiatric) are being sought to provide advice or opinions on a wide spectrum on medico-legal topics such as medical negligence, medical ethics, human rights and medical law. These requests are coming from other medical practitioners, hospitals, lawyers, teaching institutions, medical defence organisations, insurance companies, government agencies and members of the public. Such requests may reflect an increasing awareness of the rights of patients and medical litigation and increasing consciousness of the benefits to be had from a professional forensic adviser. What is evident however, is the fact that medical practitioners are feeling increasingly ignorant and threatened by their lack of knowledge of legal medicine.

**Quality Control**

Integral to the provision of any service is a process of review. In the majority of areas there is little evidence that this has occurred. There do not appear to be any direct lines of responsibility in the provision of services. Of particular interest is the absence of a local or national protocol or standards manual.

There is no obligation to be involved in peer review or quality control. With few exceptions there is no network of national or international peer review processes and no scrutiny of case work reports or court performances. Effectively this has meant that many practitioners have been appointed without formal training, without any need to have ongoing education and without "the system" having any ability to assess the quality of the service they provide. The absence of such fundamental processes has important implications for the police, the criminal justice system and the public generally.

Ultimately, the criminal justice system should be the gate-keeper of service quality. However, at best, there is variable and more frequently a poor testing of expertise in the courts. Reports and evidence are of variable quality and there does not appear to be any scrutiny of performance by doctors in court.

**Education**

*Under Graduate*

Undergraduate education in forensic medicine is of variable quality and quantity. The teaching (content) of forensic medicine has actually been reduced in many faculties. This is surprising given the public interest and obvious shortcomings of medical practitioners in dealing with critical social issues such as domestic violence, child and adult sexual abuse, traffic medicine and custodial medicine.

While certain aspects are taught at most medical faculties, there are significant defects in the programs: much of the teaching is provided by non-clinicians, the content is rarely examined and there is little impetus given to the student for further studies in this area. Most university departments of forensic medicine are in fact staffed by forensic pathologists; teaching is provided by pathologists and there is no clinical work practised in the department.

It is beyond the scope of this paper to provide a review of undergraduate programs. Nonetheless, it is clear that the current teaching programs are inadequate and that there are impediments for students wishing to continue further studies or follow a career pathway in this speciality.

*Post Graduate*
Unlike other medical specialities, there are no formal career pathways for graduating students to follow. There are no university based postgraduate training programs or qualifications in forensic medicine in Australia.

As a result a generation of medical practitioners has little or no understanding of the principles of forensic medicine or medical ethics. In addition to the short-comings in training, medical students are not exposed to possible career pathways in this speciality. This lack of awareness, the nonexistence of postgraduate training programs and the absence of an academic controlling body has meant that the speciality not only has trouble attracting suitable people, but has been forced to accept many doctors who are not only under-trained but have been rejected by other specialities for a whole range of reasons. Indeed, some doctors in the field are there only because of nature's abhorrence of a vacuum. These doctors have seen a gap and have stepped into it without any real appreciation of its requirements or obligations.

There is one further critical issue, that of the education of the legal profession. The absence of educational programs has meant that lawyers have little of no knowledge of forensic medicine (Brown and Wilson, 1992). They are reliant on information from fellow lawyers, from outdated texts or an inherent rat cunning to facilitate the questioning of the forensic expert. This has resulted in a weak scrutiny of the evidence, with its inevitable consequences. It is increasingly evident that the foundation of some unsafe convictions has been the inability or the failure of counsel to adequately test the forensic evidence.

**Research**

There are very few active research programs being undertaken in forensic medicine and even fewer papers are published in refereed journals. There is however a vast amount of national and international data that remains uncollated. As a result, there have been limited advances in the way that clinical forensic medicine has been practised in recent years.

**Future Directions**

The future of forensic medicine is unclear. There has been no real impetus for change from the police forces, the universities, the criminal justice system and the majority of medical practitioners within the system. The only certainty is that the destiny of this speciality is very much in the hands of the current practitioners. The question that remains is whether they have the desire or motivation to bring about the changes required to ensure the future and proper recognition of this speciality.

The clinical skills possessed by the majority of practitioners are such that, properly harnessed and motivated, they would provide the core for the development of a high quality service. If directed and constructive changes do not occur then it is likely that the scope of forensic medical services will progressively shrink until it is engulfed by other specialities and there will be a small number of medical practitioners providing a menial range of services.

Why is it that the other forensic disciplines have evolved into respected specialities whilst the clinicians remain the poor relation?

It has been previously suggested that there were two reasons why forensic medicine had lagged in establishing itself as a medical speciality (Cordner, 1988). Firstly, the knowledge and skills of the discipline overlap extensively into other specialities, so that there is no clear delineation of the work of the speciality. Secondly, support for the development of the speciality has not been provided by an academic environment.

This second aspect will now be explored further and some other issues will be raised that have prevented the development of clinical forensic medicine as a unique discipline. There are three critical issues that must be addressed:
1) Academic departments of forensic medicine
2) Education
3) A professional society.

**Academic Departments**

The key to the future lies in the establishment of departments of clinical forensic medicine, paralleling the other forensic medical specialities of psychiatry and pathology. There can be no compelling reason why the clinical function roles should not be fostered in the same fashion. The academic model will assist in producing a body of expertise; the absence of which has been a barrier to any progress in the past (Davis, 1990). Knight (1988) has previously proposed this model and it is difficult to understand why the proposal has foundered.

Many senior police officers are supportive of such an idea. The universities may be a little more resistant but pressure must be brought to bear at the right quarter. If these institutions are able to facilitate relatively obscure programs then they must be able to provide a similar facility for what has been one of the most neglected areas of clinical medicine and one of substantial significance in the system of justice. It is easy to demonstrate that the skills of recent graduates, the knowledge of the medical population generally and that the practise of clinical forensic medicine have suffered enormously because of the absence of this process. The relevance of teaching and the provision of services in this area should be compelling arguments to even the most socially isolated medical faculty.

Surprisingly, the most disappointing aspect has been the lack of impetus and pressure from the medical profession itself. Generally, the desire for change has not been taken up by the individuals or organisations which are providing services in this area and whose speciality is currently under threat.

The structure and function of university departments of clinical medicine are known to all of us. The specific benefit such departments have to offer clinical forensic medicine, is that they provide a powerful foundation for the practice of this speciality.

There are compelling arguments for the formation of university departments of clinical forensic medicine, or for the inclusion of clinical forensic medicine as a major area in existing department, thus:-

1) An **independent service** is provided; the employer (previously, the police) has no role in the investigation or prosecution of offences.

2) **Peer review and service scrutiny** are accommodated in the academic system.

3) **Regulated appointments** are made. There is a compelling argument for chairs in clinical forensic medicine. This is not only long overdue but would go a considerable way to improving the stocks of this speciality. In a discipline that has become increasingly specialised such an appointment would provide leadership, focus and development.

4) **Full-time clinical specialists** would provide the majority of all services; some support could be provided by part-time practitioners who would also be university appointees. Specialisation in such fields as paediatric gynaecology or clinical pharmacology could also be accommodated.

5) **Services** can be widened depending upon the expertise of the various incumbents.

6) **Resource bases** can be established. The pooling of physical (for example, equipment, library) and human resources produces considerable savings.
Additionally, the department would have the potential to become a readily accessible resource base for students and other practitioners.

7) **Legal counsel** could use the services of autonomous university departments without compromising their own clients' representation. As the knowledge of the departments' expertise spreads, then they will be increasingly used by other agencies throughout the country and perhaps even internationally. This could create a healthy rivalry and co-operation between departments and would develop further sources of funding. There have already been developments along these lines, indicative of a considerable potential for the future, under the present embryonic arrangements.

7) **Registers of experts** could also be developed on a national basis. The register could list the academic departments and the individuals therein and qualify their experience and expertise in the various areas of forensic medicine. The register could be utilised by the criminal justice system or other agencies for service provision.

8) **Research** could also be accommodated in such a facility. Case data would be held within the departments and utilised for research by under graduate or postgraduate students. The critical issue of funding would need to be addressed in the budget provided for services.

**Education**

The second critical issue that must be addressed is that of undergraduate and postgraduate education. The academic model lends itself well to teaching at both levels.

**Undergraduate**

It is beyond the scope of this paper to explore the syllabuses of the ideal undergraduate program but the aims should be:

1) To teach the principles and practise of forensic medicine; and
2) to expose a potential career pathway to students.

The key features of undergraduate teaching should be:

1) The course must be **relevant** to current medical, legal, policing and social issues;
2) teaching must be provided by **practitioners** of the speciality;
3) the course must be **examinable**;
4) options should exist for medical (or other) students who want to partake in **extra studies** in the discipline (for example, electives, Bachelor Medical Science courses, etc.).

Undergraduate teaching in the principles of forensic medicine should available to other disciplines such as students of law, criminology, nursing, social work, dentistry etc.

**Postgraduate**

Critical to the future of forensic medicine will be the establishment of a postgraduate educational program and qualifications. The objectives of the program should be:

1) To promote awareness, knowledge and comprehension of medico-legal issues, institutions and practice;
2) to provide advanced training and to establish academic standards; and,
3) to stimulate research in forensic medicine.
A postgraduate qualification would be an integral part of the training of practitioners entering a career pathway in forensic medicine. It would stimulate interest in the specialty, allow it to compete on an even footing with the other specialties and would considerably increase the pool of forensic knowledge amongst practitioners.

In the establishment of a postgraduate training program, there are substantial logistic and practical issues to be confronted. It would be inappropriate to address many of these issues until there has been acceptance of the program, but some of these seem to be obvious:–

1. The controlling body should be a university;
2. consideration should be given to the large number of part-time practitioners currently practicing forensic medicine;
3. qualifications should be at Diploma and Masters level. The Diploma would be directed at part-time practitioners or individuals with an interest in forensic medicine. The Masters Degree would be aimed at individuals who are practicing or planning to practice forensic medicine on a full-time basis; and
4. the course should be accessible to medical practitioners throughout Australia and perhaps, with modifications, to the Asian-Pacific region. Costs, small student numbers and limited teaching expertise, justifies the establishment of only one such program in Australia. Distance education facilities could be utilised for providing the course to other centres.

The offering of university-based postgraduate teaching programs and qualifications are long overdue. These programs, a structured career pathway and employment opportunities will do much for the functional effectiveness and the development of this speciality.

Whilst specialist training should be made available to graduates who are planning a career in forensic medicine, a general training program should also be made available to other disciplines. There is a need and market for a wider educational program to such groups as lawyers, police, dentists, nurses, and social-workers. There is much evidence to suggest that lawyers in particular, are thirsty for such information:

1) Forensic subjects are amongst the most heavily subscribed topics offered at an undergraduate level.
2) Compulsory updating of skills has meant that many lawyers are desirous of involving themselves in a specialised area of law.
3) Market place supply and demand rules are forcing many lawyers to improve the quality of their services in order to get a "slice of the action".

A knowledge of forensic medical issues amongst the legal profession will result in a better understanding and a more intelligent scrutiny than is occurring at the current time.

Formalised training programs would improve the quality of expertise provided to courts and result in considerable benefits to the criminal justice system.

**A Professional Society**

The final issue directing the future of forensic medicine is the establishment of a union of clinicians. A society of forensic clinicians is fundamental to harnessing and co-ordinating the activities, and developing the spirit of its members. The membership of the society must be firmly based on academic criteria.

The creation of such an organisation will depend on the formation of academic departments and the creation of postgraduate qualifications in clinical forensic medicine. A union that has no specific criteria for membership, that is lacking in the ethics expected of such professional associations and that is merely self-serving will never gain the respect or withstand the scrutiny of its peer associations (McCaughy, 1991). Without such a union, clinical forensic medicine will remain on the fringe of professional medical practice.
Conclusion

Most of us have spent our careers dealing with individual patients and we have not been forced to look at the bigger picture. This closeting has been to our own detriment. We can no longer watch and wait whilst others are setting agendas that are, or may be, incompatible with the future of this speciality.

Forensic medicine is in an extremely tenuous state. This is particularly so in the United Kingdom and Australia. In some other countries, the deficiencies have been recognised and there are active programs in place to reverse this trend. There is an urgency in tackling these issues. In Europe themes of commonality in the teaching and practise of forensic medicine are being explored. In the United Kingdom, the Royal Commission into the criminal justice system is examining the very foundations of the legal system. Worldwide, unsafe convictions and allegations of miscarriages of justice are eroding confidence in the practise of the various forensic specialities. Economic rationalisation is causing police forces, universities and other employer bodies to scrutinise the services provided by their employees.

The time has come for us to become guardians of our own profession. As Pennington (1990) argues, unless we are seen to be setting and maintaining professional standards then others will do so, to our detriment.

Undoubtedly the transition will not meet with universal approval and for many the status quo will be the preferred option. However, unless we can embrace a professional ethic and cause clinical forensic medicine to be established as a recognised speciality, then it will become a fragmented archival curiosity and the backwater of a larger pool.

References


