Abstract

Due to its intimate relation with human health, medicine is not just a natural science to be boiled down to numbers and statistics alone, and decisions regarding treatment always involve ethical considerations. While medical ethics has its classical pillars of Beneficence, Non-maleficence, Autonomy and Justice it is an evolving field, and urology is a more rapidly evolving field still. This presents itself as a constantly shifting ethical landscape that changes as past practice becomes current contemporary practice, which itself guides future practice. Ethical challenges falling into four overarching themes particularly relevant to contemporary urological practice will be discussed under the headings of advertisement and self-promotion, technique and technological advances, informed consent/recruitment and end of life care.

Introduction

Moral incontinence is defined by Aristotle in his book of Nicomachean Ethics as having ethical knowledge but not exercising it, that is to do the ‘wrong’ thing while trying to achieve a good goal. The link between ethics and urology traces back to Hippocrates and his Hippocratic oath in condemning the cutting of the bladder for stone excision, saying “I will not cut, even for the stone, but I will leave such procedures to practitioners of the craft” thus predicting the future arrival of urological surgery.

It is unrealistic to discuss all ethical issues contemporary urologists may face, or indeed any more than a select handful in a single piece. This essay will therefore explore some of the pertinent, overarching issues in contemporary urological practice from which a plethora of ethical challenges may arise.

1.Advertisement and self-promotion

It can be argued that in recent decades economics have had a more profound impact on medicine and accelerated the transformation of aspects of medicine into a market-driven business. Alongside the advent of the information age via the internet and social media, contemporary urologists find themselves positioned to promote and advertise their expertise to an ever-expanding market which brings a host of ethical dilemmas. For example, in 2003 TAP pharmaceuticals opted to settle a case with the US government by which the company provided urologists financial incentive to prescribe their hormonal treatment Lupron to patients. The settlement was made by a sum of 875 million USD and the case resulted in criminal convictions for several urologists[1] and significant damage to patient trust, an invaluable commodity in the ethical practice of surgery.

Urological practice constantly finds itself at the cutting edge of surgical technology and undoubtedly, such as seen with the adoption of the Da Vinci robot, there is a strongly marketable component for these technologies. Patients may be attracted by lasers and robotics and with them they bring volume and potential to return on investments already made, which can result in a conflict of interest for the urologist performing the treatment. The ethical obligation to provide honest information to patients is unquestionable and as such urologists must be increasingly vigilant in the face of market-driven medicine. Furthermore, the rapidly developing scene of technique and technology in urology may have surgeons finding themselves in situations where they are competent in one form of treatment yet cannot perform alternative techniques that perhaps have better outcomes. The surgeon may then need question themselves whether it is an ethical obligation to refer the patient to an alternative centre while balancing a multitude of considerations – is the alternative treatment economically viable for the patient? Can it be carried out in a timely manner? Does it provide enough of a benefit to warrant the referral? It is a pandoras box of ethical issues, but the

contemporary urologist may find guidance by returning to the ethical principles of medicine namely Beneficence, Non-maleficence, Autonomy and Justice.

2.Technique and technological advances:

It is no question that urology is often at the forefront of the implementation of surgical procedure and technology, with the speciality constantly finding itself in the face of five key ethical considerations to be made when implementing new technology into practice[2].

How is safety insured for the patient?

How is new technology phased into a hospital?

How are patients informed or consented?

How are surgeons trained and credentialed?

How are outcomes evaluated?

These considerations are not exhaustive and each one is fit to be the topic of an essay alone. It is critical to address the issue of safety for the patient – as while the efforts of each surgeon are, on aggregate, contributory the approval process it is primarily carried out by regulatory bodies. This process is both stringent and in a constant stage of change thus perhaps stagnating investment due to its risky nature from the perspective of medical companies. Regulation of procedure is a more elusive question with plenty more room for input from individual surgeons, in the United States for example, new procedures are evaluated at a more local/institutional level (in Ireland, oversight of the robotics programme is by the Robotics Governance Committee) and as such the urologist must carry the ethical onus of being able to answer those five questions in their duty to the patient during the development, teaching and implementation of new technique. Similarly, the process by which new technology or procedures are phased in varies at an institutional level with each institution being responsible for overseeing practice, policy and provision of safe facilities[3].

Again, the criteria by which urological surgeons are trained and credentialed for use of new technology varies globally but what is constant is that the individual practitioner is ethically responsible to ensure they are appropriately trained and competent for the procedure they are carrying out and the equipment they are using. An Irish example is the provision of an ERUS approved fellowship at the Galway clinic in order to provide appropriate training in robotic prostatectomy, with many similar examples abroad. The mechanics of the processes by which outcomes are measured are outside the scope of this essay, but it is a goal that requires considerable effort, time and investment with use of studies, prospective reviews and institutional databases. It is however critical to the establishment of new technology and practice and therefore arguably a moral obligation on those involved in practice.

3.Informed consent and patient recruitment

The rapid emergence of new techniques and technologies that defines contemporary urology also compounds the ethical challenges of discussing potential benefits and risks with patients. The increasing availability of information via media and the internet, enshrouded by marketing and economic interests and in view of limited understanding regarding emergent technology, will additionally influence the informed consent process and poses further ethical challenges for the urologist. Again, a balanced and honest approach by the surgeon is imperative and as an excellent paper suggests, “The discussion between the surgeon and the patient is a process of listening, understanding, educating, building trust and advising. Patients should not permit physicians to do things to them…they should request physicians to do things for them” [2]

Another ethical challenge for urology as a rapidly evolving field is posed by the advent of newer drugs for treatment of urological conditions and the involvement of urologists in the regulatory process by recruitment of patients into clinical trials, or into prospective registries and databases for outcome measurement. In order to ethically include a patient in a study

the urologist themselves must endeavour to be of a sound, informed opinion that the intervention being considered is beneficial for the patient, and then in a balanced, honest approach convey the subtleties of the trial and intervention in question and ensure the patient understands and is truly able to give informed consent. It is in this pursuit of patients for studies or clinical trials that the urologist's moral compass should point firmly in the direction of duty to the patient. [4]

4.End of life care

Contemporary urology finds itself thrust into a society with an ageing patient cohort and increasingly managing elderly patients. As populations age and management of preventable causes of death such as cardiovascular disease is optimised, along with the expansion of diagnostic capabilities, the need for end of life urological cancer care will increase[5]. It is in this capacity that urology must face the ethical challenges presented by shaping a healthcare system that honours life while allowing dignity in death. Although most urologists and indeed physicians would find the idea forcing a competent patient to submit to treatment unpalatable, urologists may find themselves increasingly under pressure from patients' families with regards to end-of life decisions and pressured by an internal compulsion stemming from the strong action-oriented culture of surgery, which is often cited as a barrier to optimising palliative care in the surgical patient [6] [7] [8].

The first step in addressing the ethical issues posed by end-of-life decision-making ensuring the patient and their family are appropriately informed with regards to prognostication in view of morbidity, mortality, outcomes centred on the patient's goals, quality of life and probable life expectancy. The path from there on branches but is always underpinned by the pillars of medical ethics, in particular autonomy and an understanding that in addition to technical prowess the surgeon must be in the words of Andrew Boorde, physician to king Henry VIII "wise and gentle, sober and circumspect".

Conclusion

Despite ethics and morality being rooted in the realm of abstract thought and surgical practice being rooted in decisive action, marriage between the two is essential in providing complete care to all patients. This essay explored some of the overarching themes that underpin ethically challenging issues in contemporary urological practice, but it is important to recognise the multitude of ethical challenges urologists may face not only with technology and informed consent, end of life care and the ever growing economic influences in medicine but also when having to approach socially sensitive issues including sexual function, transsexuality and gender ambiguity amongst other case-by-case ethical challenges in daily practice.

References:

1. Studdert, D.M., M.M. Mello, and T.A. Brennan, *Financial conflicts of interest in physicians' relationships with the pharmaceutical industry—self-regulation in the shadow of federal prosecution*. 2004, Mass Medical Soc. p. 1891-1900.
2. Strong, V.E., et al., *Ethical considerations regarding the implementation of new technologies and techniques in surgery.* Surgical endoscopy, 2014. **28**(8): p. 2272-2276.
3. Sachdeva, A.K. and T.R. Russell, *Safe introduction of new procedures and emerging technologies in surgery: education, credentialing, and privileging.* Surgical Clinics of North America, 2007. **87**(4): p. 853-866.
4. Mohan, A., *Ethics and contemporary urology practice: Setting out principles.* Indian journal of urology: IJU: journal of the Urological Society of India, 2009. **25**(3): p. 340.
5. Hounsome, L., J. Verne, and S. Woodhams, *End of life care for urological cancer patients.* Journal of Clinical Urology, 2017. **10**(1_suppl): p. 47-51.
6. Mosenthal, A.C., et al., *Changing the culture around end-of-life care in the trauma intensive care unit.* Journal of Trauma and Acute Care Surgery, 2008. **64**(6): p. 1587-1593.
7. Schwarze, M.L., C.T. Bradley, and K.J. Brasel, *Surgical "buy-in": the contractual relationship between surgeons and patients that influences decisions regarding life-supporting therapy.* Critical care medicine, 2010. **38**(3): p. 843.
8. Schwarze, M.L., et al., *The role of surgeon error in withdrawal of postoperative life support.* Annals of surgery, 2012. **256**(1): p. 10.