OBITUARY

Anthony Francis Rickards

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Tony Rickards was one of the most skilled cardiologists of his generation, combining major intellectual and technical ability with great manual dexterity, making it possible for him to contribute to many aspects of the treatment of heart disease.

In the early 1980s he was responsible for one of the relatively few major advances in the technology of pacemakers since their introduction in the late 1950s, the introduction of the physiologically adaptive pacemaker. The first unit harnessing this principle was implanted in 1982 and spawned the concept that is part of nearly all pacemakers implanted today. The abstract from his classic manuscript describing this concept, published in this journal in 1981, is reprinted below.

The original idea for the pacemaker came to him while flying back from a cardiology conference in the USA. Back in England a prototype was developed but no opportunity to use it arose until an unfortunate patient came into his care at the National Heart Hospital. This man was resuscitated a number of times during the course of the night and it became clear that without some dramatic intervention he could not survive. So the prototype pacemaker was inserted at seven o'clock in the morning. Six weeks later the man was back at work.

Tony's latest development was a mobile phone with which a patient could record his ECG when a problem occurred, and transmit it to a centre for a diagnosis and advice, all in a matter of seconds. It sounds like something out of *Star Trek* but it is in fact already in use.

Tony Rickards, known as Pip to his family and close friends, was the eldest of six children of Tony and Eileen Rickards. His father was a pathologist in Lancaster. He was educated at Stonyhurst College in Lancashire where he gained three A and S levels at 16 years of age, one of the first indications of his exceptional intellect. He then went to Grenoble University for a year because he was considered too young to start medical school. There he developed his skills as a stylish skier and became fluent in French. He then went to Middlesex Hospital medical school and qualified five years later in 1968.

He did his house jobs at the Middlesex, Central Middlesex, and National Heart Hospitals and was Registrar, Lecturer and Senior Registrar at the London Chest and National Heart hospitals and Cardiothoracic Institute. He was Senior Registrar for only one year because he was appointed Consultant Cardiologist at the National Heart Hospital at the age of 29 years rather than the age of 40 as was more common at the time. A meteoric rise, only surpassed by his father who occasionally reminded his son that he, the father, had been made a consultant at the age of 28!

Tony had an extraordinary ability to learn techniques very rapidly and was ever ready to embrace new ones. Uniquely he was implanting permanent cardiac pacemakers when a Senior House Officer at the National Heart Hospital. As a Registrar at the London Chest Hospital he mastered cardiac catheterisation in six weeks, rather than the one to two years normally expected. He was involved in complex research

Anthony Francis Rickards, b. 17th February 1945, d. 28th May 2004

projects at a very early stage of his career and in 1974 won a highly prestigious and valuable Wellcome Research Fellowship. He had moved to the Cardiothoracic Institute before taking it up and no longer needed the grant for his research programme. He was able to persuade the Wellcome Foundation to fund a computer instead with the £20 000 award as he was already very involved with information technology—long before the phrase was even invented. The computer stood 6 feet tall and he always kept it in his office as a reminder of how things were.

He maintained parallel interests in all forms of interventional cardiology and was able to tackle paediatric, heart valve, coronary artery and electrophysiological problems with equal facility. To his colleagues he always gave something more than asked, always challenged bad or illogical practice, always innovating and searching for simple ways to perform complex treatment strategies.

Despite all his technical abilities Tony retained his critical attitude to the value of the skills he had mastered and never employed them indiscriminately. He remained a sound clinician of the old school, listening to his patients and learning from them. He treated his patients as though they were friends, yet maintained a professional demeanour nurtured by an intimate knowledge of his specialty and an objective practice of medicine.

He participated in professional activities at local, national, and international levels with great enthusiasm and was much sought after to serve on committees, boards, and in societies. The list of these is three pages long in his CV.

Tony started to work in IT in 1971, creating the first computerised cardiac database as a registrar. In 1980 he extended this work to recording pacemaker implantations in the UK. This had for years been significantly lower than most other European countries. Tony's pioneering work provided accurate information on pacemaker usage and outcomes and was the basis for similar models throughout Europe. It provided the means by which valid comparisons could be made. Ever since publishing a seminal leader on the low use of pacemakers in the UK in 1984, his efforts were directed through education, publicity, and participation in professional bodies to addressing this imbalance, which by the end of the century had almost been achieved.

In 1980 he was the first physician in the UK to perform successful balloon angioplasty and some years later deployed the first coronary stent in the UK. Always at the forefront of interventional techniques, and the inventor or advocate of many useful procedural developments, he was generally regarded as Britain's best interventionist.

He was the driving force behind the Central Cardiac Audit Database, bringing together the pacemaker database and a number of other systems that were used to collect information. The result has been a national database covering not only various cardiac interventions but also all patients suffering from heart attacks in England and Wales. This is now an invaluable asset and has already contributed hugely to improvements in patient management. Tony's IT abilities were so strong that even though a clinician he was appointed Director of IT at the Brompton Hospital after its merger with The National Heart Hospital.

Tony contributed enormously to the medical literature with more than 300 publications in peer review journals. From 1988 he chaired and directed the second largest trial of patients with coronary disease treated by balloon angioplasty or surgery (the CABRI trial). Typically the whole trial was computerised with no paper records. He was especially proud of his subsequent work, written as a meta-analysis, examining the world's literature comparing the results of coronary surgery versus coronary angioplasty, and presented this all over the world.

He was delighted to pass on his skills to others and was renowned as a teacher of young and older colleagues alike. The latter particularly must sometimes have exasperated him but Tony never showed it. He influenced many of us with his unparalleled gift for practical teaching. In many live demonstrations he revealed a magic pair of hands and a quick, decisive, and logical analytical gift that all of us admired and few can emulate. In addition, and unknown outside his close friends, was the fact that Tony supported many young colleagues with his time and advice, often foreign graduates, to achieve higher degrees and career posts.

Tony was an enthusiastic and accomplished sportsman. As a youth he was a fine cricketer, bowling slow left arm, and was given a trial for Lancashire Colts. Later in life he greatly

enjoyed skiing and was a first class golfer. He had a three handicap at Royal Lytham, but left the game for some years. When he took up it again in his 40s he quickly returned to playing off single figures. He loved to play golf all over the world, although he was most at home on the great Lancashire links courses like Lytham, Formby, and Birkdale. He had thoroughly enjoyed playing with close friends at Kiawah Island and Pinehurst just a week before his death.

Tony was also a master sailor and navigator. He owned a series of yachts, all equipped with the latest high technology, and delighted in "tattooing" on them. He was especially proud of navigating his way with his wife on a 26 foot Contessa across the channel and down to Brittany in thick fog. This was long before satellite navigation was around and those skills never left him. He used satellites as a back up, because despite his technological expertise he was not prepared to put his absolute trust in them.

All those who knew Tony will always remember his ready smile and cheerful laugh. And those who knew him well will greatly miss the support and comradeship that was always freely on offer.

His wife Trisha, twin daughters Sophie and Antonia, and all of his large family and many close friends will sorely miss him.

Below is the abstract from Tony's classic article which triggered the development of the modern pacemaker

Relation between QT interval and heart rate. New design of physiologically adaptive cardiac pacemaker AF Rickards and J Norman

The relation between QT interval and heart rate has been studied in a group of patients undergoing physiological exercise, in a group undergoing atrial pacing without exercise, and in a group with complete heart block undergoing exercise at a fixed ventricular rate controlled by cardiac pacing. The expected shortening in QT interval during physiological exercise is only in part the result of the intrinsic effect of increased rate, since patients undergoing atrial pacing to comparable rates show only a small decrease in measured QT interval and patients exercising at fixed rates in heart block exhibit a decreasing QT interval related to the independent atrial rate. QT interval changes appear mainly to be governed by factors extrinsic to heart rate. The physiological control of QT interval has been used to construct a cardiac pacemaker which senses the interval between the delivered stimulus and the evoked T wave, and uses the stimulus-evoked T wave interval to set the subsequent pacemaker escape interval. Thus physiological control of cardiac pacing rate, independent of atrial activity, using conventional unipolar lead systems is possible.

British Heart Journal 1981;**45**:56–61.

The memorial service will be held on Tuesday 14th September at 2.30 pm, at St James' Catholic Church, Spanish Place, London W1