Development of microprocessors during recent years and their extensive use has significantly improved the performance of electronic instrumentation. One such example is the recent increased availability of non-invasive blood pressure recorders for measuring systemic, systolic and diastolic arterial blood pressure, heart rate and mean arterial pressure. Such a device incorporating a microprocessor and using oscillometric principle was described in 1978 (Tompkins and Webster, 1981). Since then, significant developments in integrated circuit technology have refined and enhanced their performance. One important advantage of this new generation of instruments is that the required parameters can be measured and documented automatically, with accuracy and consistency. Many problems which are inherent in the manually operated simple blood pressure apparatus are removed. Their acceptance has been slow as physicians are traditionally conservative and cautious in accepting a new development. There is no doubt that microprocessors are here to stay, not as the latest vogue but on the merit of sophistication and cost effectiveness. This is one development where prospective users cannot afford to delay acceptance. Any hesitation, or further delay, might deny them a very useful tool. One problem facing medical users of the microprocessor-based medical equipment is the same as that facing users outside medicine. The manufacturers due to severe competition, are not developing uniform standardised products. They are striving to outdo each other rather than help the consumer by producing equipment which in interchangeal and machines that can 'talk' to each other.
Unfortunately medical users have been unable to influence this but have to spend their limited funds to acquire recorders and printers for their monitors if they want to keep and maintain accurate recordings. Freedom of choice among clinicians to use whatever equipment they choose must remain. Any restriction in this respect would hinder further developments and therefore would be strongly opposed by the profession.

The value of accurate record-keeping is well established and this is always desirable for good patient care. Any form of technological help which can contribute to accuracy and automation in record-keeping deserves examination. Hesitation and unwillingness of doctors to produce medical records for self-audit has been criticised (Lunn and Mushin, 1982). This hesitation would be unnecessary if records are automatically prepared and preserved. For medico-legal purposes, legible and accurate records of events are always advisable. Some doctors are notorious in preparing notes and records using illegible writing. Any records prepared in such a way that are not legible and cannot be understood by others have limited value.

Invasive monitoring of vital signs during anaesthesia and intensive care is now widely practised. It has its own advantages, disadvantages and dangers. Invasive monitoring is generally considered to be accurate and more comprehensive. But it is also true that accuracy is dependent upon diligent maintenance of equipment and correct application of transducers. This problem is multiplied when mainframe computers are used with invasive monitors for data collection and processing. These systems require continuous technical back-up which greatly increases expense. Such justified restrictions make invasive systems only suitable for large institutions where technical help is available.

Non-invasive monitors are in common use both in general hospitals and in specialised centres, and no doubt this type of monitoring is most suitable for the needs and requirements of routine day-to-day work in most hospitals. These techniques should be employed more often, on the merit of simplicity,