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A VALEDICTION FROM THE OUTGOING PRESIDENT

Mr John Moorehead
ASGBI President 2015-2016

With the end of 2016 approaching so to is the time for me to demit office. It has been a great honour and a privilege to have been President of the Association of Surgeons for the last two years. Looking back it seems like only yesterday when I first joined our Council as a regional representative for Northern Ireland but in reality it has been 12 years and the last two in particular seem to have flown by.

When I first joined our Council, the big focus was on the development of sub-specialisation where there has been huge progress. The forgotten part of our work however has been Emergency Surgery. Unfortunately this has suffered while the sub-specialities have thrived. The forgotten reality however is that emergency surgery can account for about half of our annual work. Over the last few years the Association has worked hard to raise the profile of this vitally important part of our practice and we have to thank the hard work of our Directors of Emergency Surgery for this. In 2015 we set up the Emergency Surgery Board which is now supported by all interested individuals and the four Royal Colleges. This group will have an important role to play in the future of emergency surgery. There is now growing recognition that we need to radically re-think how we deliver the emergency service and throughout the regions significant changes for the better can now be seen. While there is still too much variation in outcomes, improvements have been made and I have no doubt major progress will continue to be seen over the next few years. Emergency surgery therefore is and will remain a major part of the Association's core business going forward.

Who is going to do this work? We are convinced that we do not need yet another speciality. We probably already have too many. We feel that the emergency service should be delivered by all appropriately trained general surgeons regardless of whatever sub-speciality interest they may have. This is our firm view and will continue to be so. I would therefore urge all general surgeons, regardless of which part of the body they focus on, to join the Association and get involved in shaping tomorrow's surgery.

Behind the scenes we have made some major changes in the Association's office. Like all other medical/surgical associations we have seen a gradual decline in financial

PRESIDENT'S VALEDICTION

support from industry over a number of years. With decreasing income one thing that we have been determined to resist is raising annual subscriptions. Indeed at some point soon we would like to see them coming down. The logical step therefore was to cut our running costs. We have managed to reduce our office staff from eight to four and a half without losing any services. Our aim is to make the Association a much leaner and more cost-effective organisation for our members.

As has been highlighted in our new Strategic Plan we are determined to make real advances in e-learning. With study leave and funding for it increasingly difficult to obtain we feel our members need easy access to an e-learning platform for continued education and CPD. After lengthy discussions with the British Journal of Surgery this is something we are hoping to move forward with shortly as a joint venture. Watch this space!

One of the "perks" of being President is the opportunity to travel abroad and meet with other similar surgical associations and societies. Of the many things I have learned, the most important is that we have a huge amount in common with surgical colleagues around the world. We have the same problems and concerns which is very reassuring as sometimes we think these things are unique to our NHS. Be reassured the faraway hill is not necessarily any greener!

Before I sign off there are a number of people I would like to thank for all the help and support I have had over the last two years. Firstly I would like to thank all my colleagues on the Executive Board, past and present. These men and women give up a significant amount of their free time for the Association and without their support my job would not have been possible. I would also like to thank the loyal members of our Council and in particular our regional representatives. Their input is hugely helpful and much appreciated. The final group I would like to thank is our office staff. They have cheerfully endured the major upheaval in the office as well as being of great assistance to me. In particular I would like to thank Bhav who is our new General Manager. Her loyalty and support has been greatly appreciated.

This December I am not the only one stepping down. Our Director of Communications, David Rew, is also demitting after four years. David has put in a huge amount of work to the Association and has taken our communications to a new level. As a result of his hard work and enthusiasm we are now largely paperless and are well on our way to embracing the new digital age. On behalf of the Association I would like to thank David for the enormous contribution he has made.

As David leaves we welcome two new members to our Executive. Vassilios Papalois takes over as our new Director of Communications and Informatics, and we welcome Iain Anderson back as our new Vice-President. I wish them both every success over the next four years.

The time has therefore come to step aside and let the new President, Rowan Parks, take over. As another member of the Celtic fringe I have no doubt that Rowan will do a great job for the Association and it is very reassuring to know that it will be in safe hands

In closing I would like to thank you for your patience and support over the last two years and wish you a Happy Christmas and best wishes for the New Year.

AND A LOOK FORWARD FROM THE INCOMING PRESIDENT...

Professor Rowan Parks
ASGBI Vice President 2015-2016

Twenty five years ago I attended my first "overseas" surgical congress – it was a meeting of the Association of Surgeons of Great Britain and Ireland in Jersey. I was an SHO on the Belfast Basic Surgical Training Programme, and on that occasion I didn't go because I had a paper to present, but because my father was President and I didn't want to miss it. I joined and tagged along with many of the NI folk that I knew – registrars, senior registrars, consultants and even the secretaries from the Department of Surgery in Belfast (who organised most of the event). I still have memories of that meeting – the lectures, presentations, chains of office, dinners and speeches. It was great fun, although tinged with a bit of sadness with the death of one of the senior ASGBI members during the course of the congress. A lasting memory of these inspiring few days was the friendship and camaraderie shared by this surgical community. For me, it brought to life an organisation that I had heard about for many years – chat at home about the various committees and roles that my father had undertaken – on the EAC (Education Advisory Committee), scientific committee, finance committee, council, executive and ultimately being President from 1991 - 1992. This was also the first of many trips to the annual ASGBI Scientific Conference.

Another highlight for me was four years later when the ASGBI annual conference was in Glasgow. I was presenting in the Moynihan Prize session so probably didn't take in much, if any, of the educational content of the meeting. However, I do have fond memories of the gala dinner, hosted by Professor Miles Irving as President. As custom was at that time, the various prizes were only announced at the very end of the evening and the Moynihan Prize was always the very last to be announced. So I had to nervously eat my dinner and then await the proceedings. However, I was absolutely delighted to be awarded the Moynihan Medal and Prize, and still feel very privileged to be part of a phenomenal list of previous winners – a very special occasion.

Many further ASGBI congresses were attended over the following years. Shortly after being appointed as Senior Lecturer and Honorary Consultant Surgeon in Edinburgh I applied for and was successful in being awarded the prestigious Moynihan Travelling Fellowship in 2001. This was a superb opportunity that I used to visit Professor Stephen Strasberg at the University of Washington in St Louis and Professors Murray Brennan, Les Blumgart and Yuman Fong at the Memorial Sloan Kettering Cancer Centre, and also attend the American College of Surgeons meeting in New Orleans. As a Moynihan Travelling Fellow I enjoyed red carpet treatment and fantastic hospitality by my hosts who have all remained great colleagues and friends over the subsequent years.

It was the following year that I decided that I had benefitted so much from the ASGBI that it was time for me to start giving something back. So in 2002, I was appointed to join the Scientific Committee, a committee that I subsequently chaired from 2005 – 2009, co-

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...THE INCOMING PRESIDENT

ordinating the annual meetings in Edinburgh, Manchester, Bournemouth and Glasgow. I was one of the Regional Representatives for Scotland from 2009 – 2012 and chaired the Education & Training Committee from 2012 – 2015. Over these 10 years I served on council and from 2012 on the Executive Board, becoming Vice President in 2015. And so as we enter 2017, I consider it a tremendous privilege and pleasure to take on the Presidency of ASGBI – 25 years after my father had this honour – the first time this has occurred in the 97 years of the Association.

I would like to take this opportunity to thank and pay a special tribute to Mr John Moorehead, who has led the ASGBI exceptionally well over the past two years. This has included two fantastic meetings in Manchester and Belfast, re-invigorated collaboration with our various sister Specialty Associations, a major review of the office infrastructure and staffing, development of a new 5 year strategic plan and increased collaboration with UEMS and a number of international general surgical organisations. There have been challenges but John has shown great leadership and commitment to steer the organisation forwards and he deserves tremendous recognition for all these achievements.

As we enter 2017, ASGBI has an ambitious agenda. Emergency General Surgery must remain at the heart of the Association's interests and activities. We hope to build on the success of the recent Yorkshire regional meeting organised by Professor Pete Sagar and plan similar meetings around the country. We believe that the Emergency Surgery Board, currently chaired by our new Vice President, Mr Iain Anderson, will continue to have influence in supporting service development, shaping appropriate job plans and business cases, and will provide a forum to share quality improvement initiatives and areas of good practice for wider dissemination.

I am delighted that we have been able to agree a renewed relationship as a Strategic Partner with the British Journal of Surgery Society. Not only will this provide an electronic version of the BJS to every member for less than £3 per month, but also ensures their ongoing significant financial support to enable us to attract quality keynote speakers to attend the congress, a number of prizes, a workshop with the BJS editors and electronic publishing of abstracts from the congress. Furthermore, we are also planning to collaborate to develop an on-line e-Learning portfolio and look forward to working with the BJS in the coming years.

We will return to Glasgow for the Annual Scientific Meeting from 3-5 May 2017 – some 21 years after my first meeting there when I was awarded the Moynihan Medal. I certainly haven't been to every meeting since then but think I have managed the last 15 consecutive meetings. However, still a bit to go to reach my father's record – he has booked for Glasgow already (making good use of the early bird rates) and this will be his 40th consecutive attendance at the ASGBI annual conference !

When the Association was founded in 1920, the original mission purpose was "…. for the advancement of the science and art of surgery and the promotion of friendship amongst surgeons". The programme for the May meeting is almost finalised and will certainly provide plenty of educational and scientific content, but we will also aim to ensure the event will be a tremendous opportunity to make new friendships and renew old ones. Looking forward to seeing you there.

REPORT FROM THE DIRECTOR OF FINANCE

Mr Neil Welch
ASGBI Director of Finance

Our official accounts for the year ending of 2015 show a small profit on our activities (£27k), with a total reserve of £146k on a turnover of £1.3m. The end of year accounts for 2016 are obviously not yet available.

Over the last few years the Executive has recognised that the financial reserves of the Association need to be increased (£250-300k) to allow the ASGBI to weather any possible loss. In addition, a larger reserve will make cash flow much easier and allow us to further develop membership benefits.

The most recent change to the office has seen the departure of Ashkan Sepehr (Finance Manager). Following that, we have hired Scott Steel via an agency in order to obtain an external view on our finance systems, and to implement any necessary changes. This will give us an opportunity to discover further changes that we may need to make going forward.

The reality is that we are operating in a challenging environment with respect to membership coupled with high costs of doing business. In response to this situation, we took the decision last year that we no longer required the role of chief executive, and have reduced the overall size of the overall team. Consequently, we now employ a smaller team offering efficient, effective and flexible support for the Association. This has already helped in reducing our costs, and with the RCSEng planning to re-develop their buildings (Project 2020) and a need for a consequent move into temporary accommodation we hope to further reduce costs particularly with respect to rented floor space and services.

The BJS Society has had a long and valued relationship with the ASGBI and they provide financial support (BJS Travelling Fellowship, prizes, publication of abstracts etc.) that we value very highly. They reduced the cost of supplying the BJS electronically to ASGBI members and this has been agreed recently at £35 pa. The price agreed depends on all full members receiving access to the BJS, but affiliates and senior members will continue to be able to opt-out. I consider the new BJS cost to be fair value in exchange for the whole package that the BJS Society offers the ASGBI. I would like to pass on these reductions to members where possible and will reduce the planned change to subscriptions rates in 2017 to affiliate and senior members who have opted to receive the BJS (a reduction of £12). I am constitutionally unable to make changes to our other subscription categories (as the BJS is not formally separated out from the subscription rate) until approved at the AGM in Glasgow 2017, but it will factor in my recommendations for subscriptions fees going forward.

I would encourage Affiliate and Senior members who don't have access to the BJS to take up the offer for a bargain £35 pa ®C please feel free to contact the office about this.

Unfortunately, the cost of Congress venues have become increasingly burdensome especially as commercial sponsorship has diminished over the last few years. We have contracts for future congresses, including sizeable exhibition space until 2022, but we are in the process of negotiating with venues to reduce costs as well doing our best to increase exhibition income, as well as ensuring that the Congress itself evolves and responds to delegates needs and interests.

The Surgical Foundation is always looking to raise money for our overseas fellowships. Once again we will be holding a Bike Challenge in Glasgow so I would strongly encourage you to gather a team together and raise money for the Foundation!

If cycling is not your thing, I would be grateful if you would consider making a donation, however modest, to TSF, perhaps even a regular donation such as £10 annually? Giving is easy by following the donation link on the ASGBI website, The Surgical Foundation website or via this link:

https://www.totalgiving.co.uk/donate/the-surgical-foundation

Finally, please do take advantage of the Early Bird Rates for members and book early for the 2017 Congress to make yourself a significant saving. I look forward to seeing you in Glasgow!

REPORT ON THE 2016 INTERNATIONAL SURGICAL CONGRESS

Mr Baljit Singh

ASGBI Director of Scientific Programme

11th to 13th May 2016, Belfast

The ASGBI Annual Scientific Meeting was a great success with 306 Short papers and 398 ePosters. This year the three prize papers from the Sylvester O'Halloran scientific meeting were also presented. There was a strong theme on emergency surgery with the first publication of the NELA report, which coincided with the award of the NELA Prize paper.

The programme was diverse including well received symposia from the ALS, Emergency surgery and British Hernia Society.

In addition to the allied surgical societies there were sessions from;

- Association of Trauma and Military Surgery,
- Chapter of Surgeons British Transplant Society,
- RCSI
- Military Surgical Society
- Irish Chapter of the Association of Upper Gastro-Intestinal Surgeons
- Section of Surgery of the European Union of Medical Specialists
- Health Informatics Symposia

The 'Hot Topic' focussed on the delivery of emergency surgery. As in previous years the most popular trainee format was the 'Meet the Experts' which included the BJS Travelling Fellow, Dr Dorry Segev from John Hopkins University.

REPORT FROM THE CHAIRMAN OF THE EMERGENCY GENERAL SURGERY BOARD

Mr Iain Anderson

ASGBI Vice President-Elect & NELA Surgical Lead

Emergency duty continues to trouble many of us ®C whether it's delivering the care, staffing it or organising services in a way that is better for patients as well as for surgeons. Everyone has a view on it ®C even if it's just on how they might get off the rota! We know it's unpopular, under-resourced and needs clear directional leadership but with multiple surgical specialty associations and Colleges, how can that be achieved?

The Emergency General Surgery Board tries to help by drawing together under the umbrella of ASGBI, the general surgery specialist association, representatives of all 4 UK Colleges, the major surgical specialty associations and surgical training (SAC) together with senior representatives from anaesthesia, critical care and radiology. It meets 2 or 3 times per year and tries to advance topics that are of concern to most surgeons practicing Emergency General Surgery (EGS).

Training and the organisation of EGS are always active topics and will feature prominently in the ASGBI International Congress in Glasgow (3rd to 5th May). Some trainees believe a work-life balance needs to be struck to ensure the best patient care is provided whilst also ensuring the profession remains attractive enough to attract and retain future surgeons. The results of a new survey of trainee attitudes to, and training in, EGS will be presented In Glasgow. There will also be a whole session on the pros and cons of how to re-organise your EGS work to make it manageable and sustainable. Why not register and also book to spend a few days in the stunning scenery of the West of Scotland ®C Loch Lomond, the Firth of Clyde, Arran and Glencoe are all within reach and some could be a day trip.

Three other big topics for the EGS Board this year have been access to emergency radiology, the National Emergency Laparotomy Audit (NELA) and gastro-intestinal (GI) bleeding. The NCEPOD report on management of major acute GI bleeding and organisation of related services was published in late 2015. It is entitled "Time to get control" and is well worth a look (1). There are

useful case vignettes which highlight potential pitfalls. The report's main recommendations include:

- Only admitting GI bleeding to units with 24/7 endoscopy, critical care, GI bleed surgery and interventional radiology (the last could be on site or defined network)
- Discussing all major GI bleeds with consultant within 1 hour
- Having defined pathways of care including timely endoscopy and other interventions
- Having a lead clinician to organise services for all GI bleeding

One significant thrust is the advice that medical gastro-enterology should very much be the leaders in this. How easy that will be to deliver safely in smaller units is not clear and will need careful thought in each unit. This change reflects the much increased role of interventional radiology (IR) in treatment algorithms for upper and lower GI bleeds - often as a preference to surgery. That brings us to our next challenge.

We've known for 5 years or more that IR is only available in about one third of acute units out of hours. Lamentably there has been little change in this as the development of networks with robust rotas has been slow in some areas and non-existent in others. Radiology is under considerable manpower pressures but deaths from GI bleeding are still occurring and we're setting out to work with Radiology to try and encourage the development of IR networks further. We have also made contact with NHS England. I would be very interested to hear of any failures and successes which you have had in this area as the stronger the case we can make collectively for change, the more NHS England are likely to be able to prioritise this.

Radiology plays a huge part in EGS now ®C often being the key diagnostic step in letting us run a modern service with rapid laparotomy for the sick and ambulatory care when possible. In some sense scanning has now replaced the cultured diagnostic hand of the surgeon in many situations. In the era of consultant-led emergency services it's incongruous that access to urgent ultrasound can be at the whim of a junior radiologist who hasn't met the patient! Again we're starting to discuss that with Radiology. Many units have established defined EGS scan slots which make a big difference to ambulatory patient flow (and hence beds for elective cases) but it may be that we'll also have to be more selective about scans as workload increases and resources flat line. A new algorithm for RIF pain management will be a topic for next year. It's not rocket science but clinical algorithms can support clinicians in obtaining the resources they need to deliver effective services while guarding against unwarranted criticism.

Scans are also integral to acute biliary care which represents about 35% of our "take". Debate rages currently over the role of ambulatory care, acute lap chole and delays to treatment (2). The SWORD database shows the variation of results including urgent operation and re-admission rates (3). If you've not read it, the consensus guideline produced by Ian Beckingham and colleagues helps enormously. The Cholequic study is investigating ways of improving urgent biliary care in a series of units and will report next year.

NELA

The National Emergency Laparotomy Audit (NELA) has been running for 3 years now. The second patient report came out in July and showed comparative risk adjusted hospital figures for the first time (4). How did your Trust do? Survival is possibly slightly better than a few years back but it will take a couple more years of NELA to see if there's a contemporary trend. Other countries are starting similar processes so seeing how we compare with our international colleagues will be important. Some very preliminary results suggest we may have work to do.

The aim of NELA is quality improvement (QI) and using your local NELA data can have a significant effect. It's a great lever for securing local resources and a number of abstracts submitted to the ASGBI meeting this year showed changes in outcomes. You can access your own data via your hospitals surgical NELA lead or the NELA website and the NELA reports

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and website have good tips for achievable local QI (5). It was noteworthy that many of the "processes" within medical control (time to senior review, consultant presence, CT scan report etc.) had improved whereas those within the control of resource providers had not. With our anaesthetic and critical care colleagues we're trying to get our collective efforts matched. You could do the same locally depending on your local issues ®C you could set a couple of local goals for improvement of both clinical and managerial controlled factors.

One contentious issue has been the Academy/Royal College standard that there should be "Consultant review within 14 hour of presentation at hospital". NELA data indicated that emergency patients were seen within this timeframe in only 55% of cases but that figure rose substantially when patients admitted to non-surgical units were appropriately excluded. It is hard to argue against this 14 hour standard and the Board believes that a single surgical admission unit or ward would be the best way to improve this statistic. Job planning is also needed to achieve this, particularly around evening review of new admissions that day. There has just been a re-do NELA audit of resources so it'll be interesting to see what has improved and what has been cut.

Local Resources

We know that Emergency General Surgery (EGS) can easily be left behind in the drive for specialist elective activity in our hospitals. Yet EGS accounts for over 90% of surgical mortality and most of the bed-days. While necessary resources (such as 24 hour theatre availability) and standards of care have previously been laid out (2,6) the EGS Board has identified some key components of a modern EGS service which every hospital needs and which colleagues may find it easier to campaign for locally knowing they have the backing of their Colleges and Associations.

1 There should be agreed clinical pathways for emergency laparotomy, acute biliary disease and ambulatory care of EGS patients. Guidance on these is available.

2 Adequate access to theatre, CT and critical care is essential.

3 There should be regular multidisciplinary morbidity and mortality meetings for EGS, ideally based on local NELA data and subsequently also on SWORD (acute gallbladder) database.

4 Job planning should provide duty periods free of all other commitments, twice daily senior ward rounds 7 days a week and a system to deal effectively with the "tail" of previously admitted EGS patients.

5 There should be formal network arrangements with regional units for specialised care, including interventional radiology. This must include published rotas and secure arrangements for rapid transfer.

6 Each hospital needs a defined lead for EGS. Without this it will be more difficult to achieve the other components.

Clare Marx PRCS commented recently that critical care access is still not what it should be for surgical patients in the UK and that this should be a focus of further discussion and campaigning. If you have difficulty with access to key resources for EGS then please let me know. There's a list of documents below which you may find useful if you are trying to canvass for local resource or change. ASGBI is always happy to lend support where it can.

Please contact me at **iain.anderson9@btinternet.com** or contact ASGBI at **EGSinterestgroup@asgbi.org.uk**

Points of Reference

1 NCEPOD Time to Get Control www.ncepod.org.uk/2015gih.html

2 Future of Emergency Surgery http://www.asgbi.org.uk/download.cfm?docid=9C028BBD-259C-4483-B33AF3F 5F51EE1B2

3 SWORD www.augis.org/sword/

4 http://www.nela.org.uk/reports

5 http://www.nela.org.uk/

6 http://www.rcseng.ac.uk/publications/docs/higher-risk-surgical-patient

ASGBI OVERSEAS SURGICAL FELLOWSHIP REPORT – SEPTEMBER 2016

Mr Narasimhaiah Srinivasaiah

Fellow in Colorectal, Peritoneal and Pelvic Oncological Surgery

The Christie Hospital, Manchester, UK

I thank the ASGBI for the "ASGBI overseas surgical fellowship" to ISUCRS2016 meeting in Mumbai and Christian Medical College (CMC), Vellore India. I undertook this visit in the month of September 2016. I am indebted to CMC Vellore colorectal team compromising of Professor Mark Ranjan Jesudasan, Dr Gigi Varghese and Dr Rajat Raghunath who hosted me. As a part of this visit, I was also an invited speaker at the annual conference of the International Society of University Colorectal (ISUCRS), Association of Colorectal Surgeons of India (ACRSI) and International Society of Pelvic Floor Disorders (ISPFD).

ISUCRS2016, Mumbai, India:
I touched down on the Indian soil in the city of Mumbai to be faced with the Monsoons. I was chauffeured to the Oberoi Trident to mark the beginning of the international colorectal congress. The fine ambiance provided by the luxurious hotel facing the Indian Ocean with glittering Mumbai high rises made my stay in Mumbai very memorable. The setting sun and the street lights resembling a string of pearls truly made the Marine Drive look like a Queen's Necklace.

The conference was the largest inter-disciplinary colorectal meeting held in India to-date and catered chiefly to surgeons with an interest in the diseases of Lower gastro-intestinal tract and proctology.

The 'cerebral goodies' started even before the conference did. The ISUCRS2016 scientific committee had arranged an impressive pre-conference masterclass on Haemorrhoidal disease and fistula in ano by the world experts from North America to Far East Asia. The next three days was filled into intellectual world class talks. Topics included proctology to pelvic floor, excisions to exenterations, Setons to Sacrectomies and of course cancers. It was a joy to watch the live operating by some of the world experts like Prof. Palanivelu. It certainly gave me an insight into the pattern of practice in India.

ISUCRS2016, Mumbai, India

I was privileged to share my work as an invited speaker on the the right colic artery: An anatomical demonstration and its relevance in the laparoscopic era, which was received well. I also presented my thoughts and challenges as clinicians; we face in the Decision making process in Surgery and Cancer care. I was given the responsibility of judging the electronic poster session which was a joy in itself.

Three days were filled with exclusive gastronomic delights, burning the calories consumed partially by indulging in the infinity pool facing the Arabian Sea. This conference as is often the case, gave me opportunity to 'network' with clinicians from around the world.

Christian Medical College, Vellore:
Moving on from Mumbai, my next destination was CMC, Vellore via Bangalore my home town. I chose CMC, Vellore for the history and the service

Christian Medical College, Vellore

this great institute provides to mankind. The hospital was founded by Ida Sophia Scudder in the late 19th century, when Ida visited her medical missionary father, John Scudder, Jr., at his post in Tamil Nadu. She graduated in 1899 as one of the first women graduates of the Weill Medical College of Cornell University; she opened a one-bed clinic in Vellore in 1900. In 1902, she built a 40-bed hospital. In 1909, she started the School of Nursing, and in 1918, a medical school for women was opened under the name Missionary Medical School for Women. The medical school was upgraded into a university affiliated medical college granting the degree of M.B.B.S. in 1942, under the name of Christian Medical College. Today it is one of the largest referral tertiary care hospitals in India. The Hospital now (statistics from 2015) caters to 8,000 outpatients, 2,100 inpatients, 162 surgical procedures, 92 clinics, and about 52 births every day.

My intent was to evaluate the colorectal practice as a snapshot during my short visit. The colorectal team at CMC Vellore has Professor Mark Ranjan Jesudasan, Dr Gigi Varghese, Dr Rajat Raghunath and Dr Rohin Mittal who is an a sabbatical. In addition they have residents and senior colorectal fellows. This is one of the few sub-specialised colorectal units in the country.

CMC Vellore, colorectal team

During my visit to CMC Vellore, I was a part of their colorectal MDT. It is fascinating to see decisions made by the team taking patient factors into consideration and patient advocacy playing an important role. After a long hectic clinic and MDT, which finished about 5.00pm it was time for consultant ward rounds and taking stock of the emergency admissions. Jobs were shared, delegated and a large number of patient reviews were done, before heading for a pint and a curry.

"It only happens in India" – A patients relative came to the bedside requesting hospital charges to be waived due to unaffordability. Clinicians have such power that this was easily achieved, and the hospital can charge from nothing to incurred costs based on the financial status of the patients.

A surprising finding is the large number of rectal cancers in young males from Bengal, who undergo rectal cancer surgery including exenterations. I am unsure, what is driving this phenomenon which is also seen closer home in East London, which has a sizable Bengali population. The Royal London Hospital in Whitechapel, also witnesses this finding. It's probably environmental factors, I suspect. This population consumes high volumes of fresh and salt water fish. They have a liking for dried fish which is unique to this group.

CMC, Vellore attracts a large number of patients from the North Eastern parts of the country including West Bengal and Bangladesh. There is a micro market business with residences, food, restaurants and rental services in this city of Vellore built around the influx of patients. CMC, Vellore is certainly a thriving health care hub for the population in need. It provides quality healthcare, training and teaching on par with any western centres in the world, and the outcomes are certainly comparable to the best around.

Postgraduate training is very competitive and once you are in the system, you come out as a finished product. I am afraid that working times directives don't apply in India, and there is high case load with good postgraduate teaching activities. Colorectal sub-speciality exams are in the pipeline.

I am pleased to say that my visit was certainly both memorable and fruitful. All told, I felt it was a fantastic visit both to share my knowledge as well as to learn from. It provided a unique opportunity to interact with world leaders in my specialty. I have certainly strengthened the bridges between Britain and Vellore, and there is a potential for British trainees to spend some time in a high volume centre like Vellore.

ASSOCIATION OF SURGEONS
OF GREAT BRITAIN AND IRELAND (ASGBI)

THE SURGICAL FOUNDATION

BJS

2017 INTERNATIONAL BURSARIES

A number of International Bursaries are available to provide support to surgical trainees from poorly resourced countries in the development of their training, by giving them the opportunity to spend two days in a UK hospital and to attend the 2017 Glasgow Surgical Week.

Each bursary is worth £2,000 and includes:

- Up to six nights' accommodation
- Three day registration to the 2017 Glasgow Surgical Week
- £20 per day subsistence allowance
- £800 towards travel expenses (re-imbursement of receipts)

The 2017 Congress will take place from 3rd to 5th May inclusive at the SECC in Glasgow, with the theme of '**Safer Surgery**'. Bursary winners will be hosted in a hospital or Trust local to the conference for two days prior to the Congress.

Applications should consist of a Curriculum Vitae, with two supporting written clinical references, and a covering letter, describing why you wish to attend the Congress and the ways in which you hope to benefit before **Friday 10th February 2017**. Any Trainee in a specialist training programme in General Surgery in a poorly resourced country is eligible to apply. Please note that for 2017, there will also be one bursary for those interested in Cancer Care.

Applications should be submitted to: bhavnita@asgbi.org.uk

For full details, feedback and case studies from previous recipients please visit:
www.TheSurgicalFoundation.org.uk/internationalbursaries

Deadline for applications: Friday 10th February 2017

SPONSORING AN INTERNATIONAL BURSARY?

The Surgical Foundation's programmes are renowned for their quality and, as a result, are highly sought after, and the Foundation is actively seeking external sponsorship of bursaries - or part of a bursary - so that this valuable programme continues to thrive. Your generous support will go a long way to help a fellow surgeon who has fewer opportunities for training and development than in this country. Should you - or your Travelling Club or Regional Surgical Society - decide to sponsor or contribute towards a bursary, you will, of course, be kept involved in the entire process. The bursary can be "named" (or kept completely anonymous) and you will be invited to present an award to your sponsored trainee(s) at a ceremony held during the Association's Congress.

For further information, please contact Bhavnita Patel at: bhavnita@asgbi.org.uk

REPORT FROM ADDIS ABABA, APRIL 2016

Miss Judy Mewburn

ASGBI International Development Committee

On Monday 4th April I visited the paediatric and orthopaedic theatres and observed three operations. The theatres were quite new with fairly good equipment and were in a good state of repair. Very few of the nurses had previously done a theatre course, with many having learned on the job. No proper swab or instrument checking was being perfumed as nothing was recorded, not even on the white board on the walls. The WHO checklist was not being carried out. Most of the staff had heard of it but thought it was too long to do.

The anaesthetics were given by practitioners who had only trained in anaesthesia and were neither doctors nor nurses. They worked in pairs and had two trainees with them which proved to be very crowded around the head of the table!

The porters performed all of the instrument washing, decontamination and sterilising. They did not have adequate face masks or goggles for protection. Bleach was used for decontamination and the instruments showed signs of deterioration and rusting.

The sets were overcrowded, the nurses putting out what they felt was needed on the trolley and fiddling with the rest of the instruments with a loose glove. Sharps were properly disposed of in a flimsy sharps box.

The theatres were very messy with all cadres of staff dropping rubbish on the floor. There were also masses of trainees and students, all very keen to observe.

There was a well-equipped recovery area and the staff knew what to do. However, their recording of vital signs was very poor. An example was the word 'adequate' written down for respirations. I explained why they were meant to record all vital signs to observe for bleeding etc.

I am pleased to report that patient dignity was respected.

I gave a short talk to the trainers asking them to work with the nurses and to help teach them.

Bob Lane gave his presentation on the WHO checklist and six of the nurses attended.

On Tuesday 5th April, the following nurses attended on all three days:

Wendesen FIkre Zewde
Meseret Workaferahu Eshete
Hana Tefera Ejigu
Tigist Belete Hailemichale
Getesew Meniwoke Kiorkgangh
Zenenya Mohemmed Hassen
Fantu Tesegaye Lulseged
Bezewit Abera Gebremariam
Elisabate Desalagn Guidire
Tizita Abera Wakweyya
Mustefa Hussen Jarso
Yusuf Gerada Hajim

We started the day with a SWOT analysis.

Strengths related to their confidence in their ability to provide good patient care, while weaknesses included late starts for list, lack of equipment, trained staff, support from the hospital management, training, staff, team spirit and job descriptions.

Opportunities included more training, CPD, salary, trained staff, better equipment, and hospital accommodation, while threats were listed as lack of support from the doctors and a lack of communication over operating lists. They noted that doctors' attitudes to nursing staff can be demeaning, that there is poor management leadership and a lack of professional independence.

We then covered the principles of suturing and handling of instruments, scissors and artery forceps including how to hold a needle holder and dissecting forceps. The nurses then learnt interrupted, mattress and subcuticular continuous suturing. After lunch we went through the training course book and covered all aspects, moving onto all aspects of infection control. Again there were two quizzes,

with prizes for the winners! Always popular!

On Wednesday 6th April, six nurses joined the doctors and spent the morning doing anastomosis of gut. The remaining six continued with their suturing. We also covered Theatre Protocols, Cardio Pulmonary Resusitation, Heimlich Manourvre, Tracheostomy, elective, emergency, and positioning. In the afternoon the nurses swapped over and we repeated the lectures and practicals.

On Thursday 7th April, six nurses joined the doctors to do arterial and ureteric anastomosis while another six learned how to suture on facsimile gut doing end to end and end to side anastomosis. We also held quizzes on CPR and Tracheostomy, which really tested their memories. Prizes were awarded again so lots of competition! In the afternoon the same skills were taught with the nurses swapping round, and we finished up with a presentation of Certificates. We all received lovely Ethiopian scarves and I was given a very sparkly dress!

Overall, the organisation was terrific, apart from having a room where I could teach the nurses, but we managed. The food was delicious and as many were fasting, a huge selection of lovely vegetables. Thank you to everyone involved in this very successful course!

REPORT FROM MALAWI, MARCH 2016

Miss Judy Mewburn

ASGBI International Development Committee

On Monday 7th March the team had a training the trainers day.

I started by going to the Main Theatres where I met the in charge who suggested that I go to theatre one, which is a general surgery theatre . There I met Dan Aeronson, a Dutch volunteer surgeon. He was teaching one of the house officer . The surgery listed was the closure of a very large wound dehisense caused by necrotising facitus on the top of the right thigh of a forty year old woman.

This was going to be performed under spinal anaesthesia.

There were two student nurses and one trainee theatre nurse on duty. There is no theatre course so the trainees learn whilst working, which is not always ideal, and principles of good practice are not taught.

I demonstrated that kindness and compassion are part of the nurse's duty of care by holding the hand of the patient, reassuring her and keeping her covered. I explained to the student nurses that they are the patient's advocate and as such must do all they can to make the patient comfortable. I asked Dan if he would like me to scrub for the case and demonstrate good technique to the nurses. He was all in favour.

I therefore scrubbed, showed them how to put out the instruments, did a full swab needle and instrument count and demonstrated how to handle used swabs to minimise infection.

The operation went well and the nurses all felt that they had learned a lot.

We then went through the principles of diathermy, its use and the associated dangers. We also looked at washing instruments and how to minimise risk of aerosol contamination, as well as discussed disposal of waste.

In the afternoon I visited the new ENT department. It has a large ward, two operating theatres, and an outpatient department. I met Wakisa Mulwafu who is the ENT consultant and he introduced me to Susan Banda, who had recently been appointed to look after the department. She had no formal ENT training and was struggling with the instrumentation in theatres.

I spent the afternoon, going through all the ENT sets, rationalising them and making them fit for purpose. The sets were made up of donated instruments, locally bought instruments and were a real muddle. However, by the end of the day we had made all the sets useable, and Susan had found a new cupboard

and had labelled all of the shelves. I advised her on how to clean up the theatre, remove all paper notices stuck on the walls and make it work properly. She was very pleased!

On Tuesday 8th March the following nurses attended the course and continued to attend for the next three days:

- Ethel T Chikadza who was in charge of the Burns Unit
- Marion M Lungu who worked in ITU and ENT
- Susan Banda who worked in ENT
- Donald Mlombwa, Mary Triciah Kupilingu, Taweni Gonde Mercy Chiwalo, and Yamikani Magodi who all worked in main theatres. Sadly Yamikani's grandfather died so he did not do the third day of the course.

We began the day with a SWOT analysis. This is the most revealing part of the course and the nurses were very honest about their needs, explaining where they feel they need more support, i.e. from senior management, where they feel their skills are useful and what they need to carry out their job. This is often better equipment but can also be being better supported from the doctors as well as better communications between all members of the team.

I shared the results of the SWOT analysis with Professor Borgstien and Dan Aeronson.

The nurses were all given forms to fill out to estimate how confident they felt about assisting the surgeon.

We then moved on to instrument handling, principles of suturing and use of appropriate sutures. The nurses then spent two hours performing interrupted, mattress and subcuticular continuous suturing. They were very keen to achieve perfection and in the end, most did just that! They then learnt how to cut sutures, take off artery forceps properly and how to assist the surgeons.

After lunch we joined the team in the Skills Laboratory and spent the afternoon assisting for small bowel to colon anastomosis, hand closure of bowel end, side to end small bowel to colon and gusto oesophageal anastomosis.

On Wednesday 9th March I spent the morning teaching the nurses theatre technique. This training course covered how to lay out instruments so that they could be seen and used easily. Most sets in Africa are hugely overcrowded with instruments and the nurses spend their time hunting for interments in the muddle. We also covered infection control and had two quizzes on this; the prizes proving to be very popular!

There was a russi anni in the library so I taught them Cardio Pulmonary resuscitation which they really enjoyed.

After lunch the nurses joined the doctors and assisted with rectal anastomosis and gut anastomosis. It was evident they had listened as they all laid out their instruments well and assisted properly.

On Thursday 10th March, all of the nurses went to the skills lab to learn about arterial anastomosis and to assist. I went with Susan Banda to the ENT department where we looked at the middle ear drill, de-rusted it and got it working. I also made up two middle ear sets from the muddle of donated equipment. They looked very smart and hopefully were useful when we had finished.

In the afternoon the nurses went to the skills lab to learn about ureteric and bladder anastomosis.

Ethel had taken me round the Burns unit and asked me if I could go and help rationalise the operating theatre. I spent most of the afternoon doing this in conjunction with the theatre nurse. She was thrilled with the results!

Again, the nurses filled in their feedback forms. They all felt that they had learned a lot and were much more confident in their abilities to assist the surgeons.

At the end of the afternoon we had a presentation of Certificates to all of the doctors and nurses that had participated in the training workshops.

CELEBRATING A LONG ASSOCIATION – ASGBI AND BJS

Professor James Garden
Chairman, BJS Society

The BJS and Association of Surgeons of Great Britain and Ireland have shared a longstanding relationship. The British Journal of Surgery was steeped in the history of British surgery when founded after a no-doubt fulsome lunch at the Royal College of Surgeons of England on 13 February 1913. The eight attending surgeons were chaired by then Sir Berkeley Moynihan, Professor of Clinical Surgery at Leeds and the inspiration behind the Association of Surgeons which was founded just a few years later in 1920. However, the real drive behind the journal was Ernest Hey Groves of Bristol who served as secretary or first editor for 27 years. The Journal's content was devoted entirely to surgery and it was edited and published in the British Isles at an annual cost of 20 shillings a year, a princely sum at the time.

The Journal has moved on somewhat since those pioneering years but has always enjoyed strong editorial leadership. Although it still strives for, and achieves the same quality content from leading surgeons of the day, it has now internationalized, operating under the title "BJS", and is recognized as the leading surgical journal in Europe. The Journal's influence and standing has grown over the years through the ownership of its registered charity, the BJS Society. It is fortunate that the charity is able to invest in surgery in a number of ways. The Society's objectives are to 'advance and improve education in surgery and to diffuse knowledge on new and improved methods of teaching and practicing surgery in all its branches'. It does this primarily through the promotion of the Journal but it has also developed strategic European partnerships. The BJS Council of Management is drawn mainly from these partner surgical associations whose relationship has increased the Journal profile and broadened its attraction globally. The Council is proud of the quality of the journal, the content of which is further enhanced by a hands-on approach by its editorial team in improving submitted manuscripts and the journal content.

This is an exciting time for the Journal. The Society has long been aware that members of partner associations expect value for their societal subscription to the journal. This has reduced considerably over recent years and comprises only £35 of the total Association membership fee for full access to the electronic content of the Journal, anywhere and anytime. We appreciate that ASGBI members wish to see value for money. Benefits to the Association include the BJS lecture, the BJS prize (John Farndon) and the free publication of accepted abstracts from the annual meeting. The editorial team has delivered regular workshops aimed at improving the preparation and reviewing of manuscripts. These workshops remain extremely popular amongst those attending the Association's annual meeting. As for all strategic partners, the Association enjoys representation on the Editorial Board and on the Society's Council of Management ensuring that the ambitions of both organisations are well aligned and that the needs of members will be represented. This is the main reason that the

ASGBI AND BJS

Association membership will be able to enjoy several exciting new developments in the coming year.

For 2017, BJS has a new website platform thereby ensuring that Association members will enjoy one click access to the journal's expanded content. You may have noticed already the new dynamic *BJS* website. The BJS app can be downloaded from both Apple and Android devices. The readership can also now personalise Journal content to fit their specialist needs, be it upper GI, HPB, colorectal, vascular or another area. Our editors have led a drive to enhance the journal content with increased educational resource. All digital content, including videos and podcasts, will be prominent on the new website, allowing authors to enhance their articles and ensure that social media is embraced to the full. We appreciate that impact factor may not be the only way to drive journals in the future. Other digital measures, such as Altmetric, enable a paper to be scored by its immediate impact on social media. We are sure that these will be important for published papers and intend to devote specific resource to take advantage of social media. The BJS Society will continue to develop new products, including e-learning, that will be of further benefit to members, and will work with its strategic partners to ensure that this resource is a major benefit to members.

However, the major development for 2017 is that of a new open access journal - BJS Open. For some time, the editorial team has been aware of the challenge of accommodating an increasing number of submitted quality manuscripts whilst the size of the journal has been fixed. In 2016, only 12% of papers submitted to the BJS could be accepted for publication. There is just insufficient space to include otherwise acceptable and valuable manuscripts. We will now be able to offer authors whose paper has just fallen outside the threshold for publication in *BJS* the opportunity to have their article published in the new *BJS Open* journal. For authors whose article is accepted and who choose to proceed, the transition of their papers from *BJS* to *BJS Open* will be seamless and straightforward. As with all open access journals, there will be a fee for publication in *BJS Open*, but at least for initial papers the cost will be waived for members of strategic partners. This development should offer increased choice for authors to publish their high-quality surgical research. Only the best of the articles will be published in *BJS Open*, ensuring the *BJS* tradition of quality surgical publishing.

This is also an opportune moment to announce that one of the stalwart supporters of ASGBI, Professor Derek Alderson, now steps down in 2016 as *BJS* Joint Chief Editor after a long editorial association with the Journal. He has been instrumental in developing the *BJS* educational programmes. He and Jonothan Earnshaw, who steps up as sole Chief Editor, have also led the extremely successful junior editorial bursary scheme that has brought a new generation of editorial talent to the fore. Of course, Derek's talents are too great to allow these to slip into an early retirement and we are delighted that he has agreed to take on a new role as Editor-in-Chief of *BJS Open*, the new open access Journal.

The BJS Society intends to keep ahead of the field in its innovative developments. As a member of the Association for over 35 years, I am delighted that ASGBI has chosen to continue its longstanding and historic relationship with the BJS. Although founded on past history, the strategic partnership will ensure added value for ASGBI membership.

BJS

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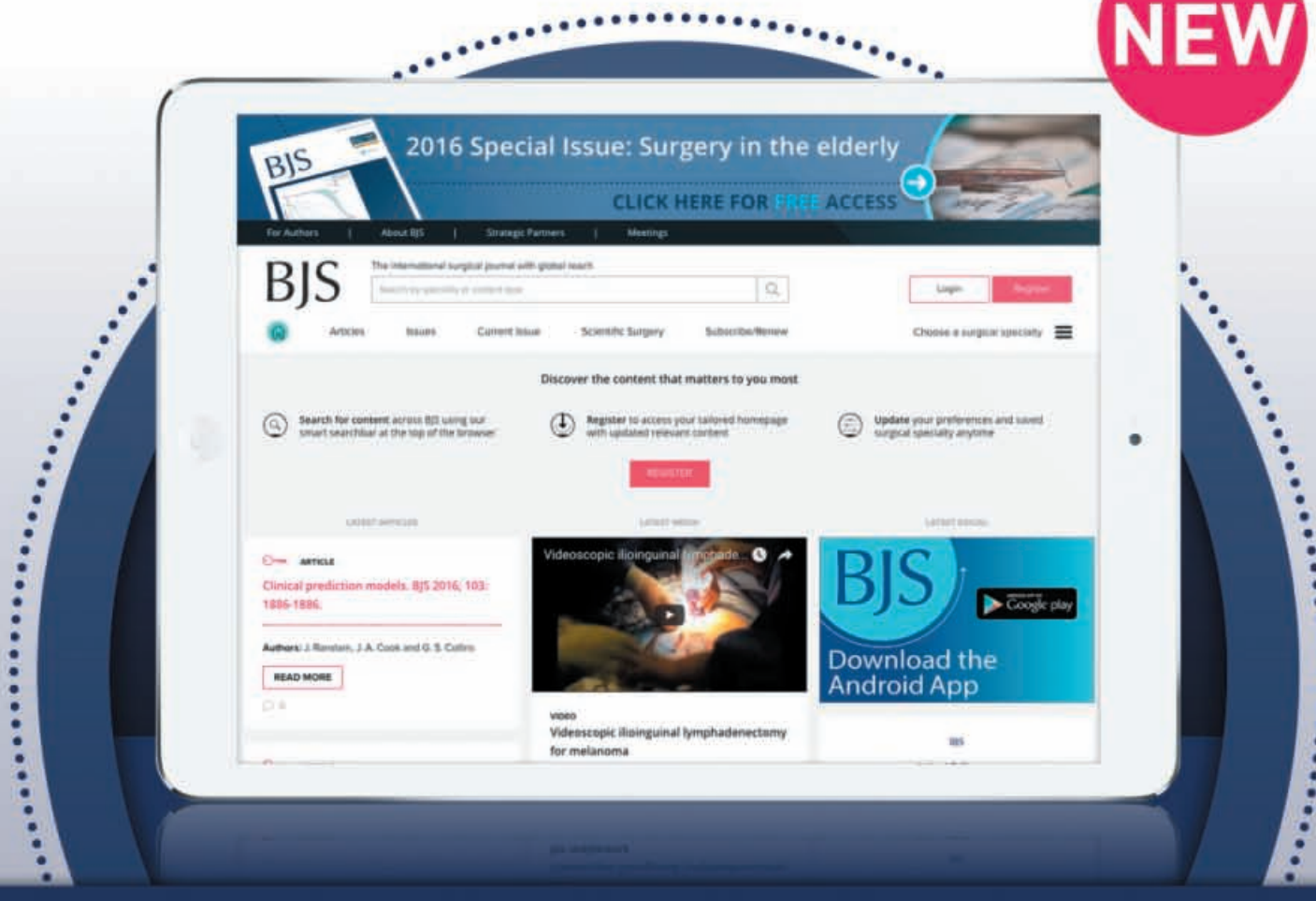

WILEY

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2010-2020: THE AGE OF DIGITAL SURGICAL ENLIGHTENMENT

Mr David Rew

ASGBI Director of Communications and Informatics

Evolution has seen a series of transformations in man's ability to communicate as new technologies emerge. Pigment led to cave paintings. Papyrus, parchment and paper advanced the process of writing. The printing press permitted mass distribution of text, imagery and ideas. Since the 1940s, and over our lifetime, digital technology has transformed the power and means of written and multimedia communication at an unprecedented rate.

The Digital Revolution itself has comprised a series of now broadly mature physical technologies with which we are all familiar. These include the computer chip, desktop and mobile computer devices, and the Internet. These technologies bring unarguable benefits in terms of the speed and capacity for information transmission and storage. They have also prompted a host of new and transformational services and industries, based around the writing of innovative software.

The best technology systems mandate a very clear understanding of consumer and customer needs. A number of Governments around the world, of which the UK has been at the forefront since 2010, are taking a very enlightened approach to the digital transformation of public services, based upon three core principles, vis:

1. Digital by Choice:
Systems will be so easy to use that the target user group will always choose to use them over older technologies (including pen and paper).

2. Digital by Design:
Design of these systems will be of such a standard, arising from high quality research into user needs, that they will provide a compelling user service and experience based upon ease use and seamless and secure access. This will apply even for users who have previously been "digitally excluded" for whatever reason.

Taken to its logical conclusion, "Digital by Design" also mandates a comprehensive examination of how organisations work, and implies the possibility of a radical change in historic structures and practices, as for example, in the relationships between citizens, and primary and secondary care providers.

3. Digital by Default:
This digital process will define the entire mindset of Government in the shaping of service design, policy making and institutional architecture.

The Digital Change Agent for the UK Government is the Government Digital Service (GDS) (1), which is a very near neighbour of the ASGBI and the Royal College of Surgeons at GDS Headquarters in Aviation House, Holborn, in London. The principles and the open source software which the change process is generating are being widely adopted by other digitally enlightened Governments, as for example in New Zealand (2).

<u>The UK Public Sector Digital User Needs Revolution</u>

The GDS has set out a series of very clear design principles to facilitate the transition to a Digital by Default Government and a Social Economy. These start with end user needs and mandate that the ensuing services fit those needs. This is in preference to making the intended user conform to poor system design, often across

multiple service providers (for example, different and unconnected Government Departments of State, as has been the historic model.

In effect, this focus on true user needs at the interface with computer systems represents the next revolution in digital transformation. It is a revolution which clinicians at the NHS coal face and beyond would do well to study and understand, not least through the regular and highly informative Blog postings of the GDS,.

Buoyed by the theoretical benefits of the Digital Economy, the UK Department of Health has mandated a total transition from a paper based economy to a wholly digital health economy before the end of this decade.

Regrettably, this transition has not been backed by any significant or meaningful investment in end user research for clinicians at the digital and clinical coal face, whether in Primary Care or in Hospital Practice. Moreover, given the adverse coverage on the huge investments in NHS IT, and given the apparent failure of top down direction of health service informatics and centralised decision making, the Department of Health has effectively devolved IT decision making and systems acquisition to individual Trusts.

Thus, at the very moment at which GDS principles are coming of age across the UK Public Sector IT Estate, Health has detached itself from the Change Process at local level in favour of local solutions and individual commercial arrangements.

Digital by Default Design for Surgeons

Surgeons across the country will have very different experiences of Informatics, depending upon which IT route the individual NHS Trusts have chosen to travel, and which systems the management teams have chosen to purchase. In general terms, experiences will be nevertheless suboptimal, with clinical staff using systems:

- which have rarely if ever been properly tested, adapted and optimised other than in the most cursory fashion for the practical end user needs of clinician and allied health professionals:

- and which have been acquired primarily for managerial and administrative functions.

It is probably fair to observe that in most cases, the uptake of digital systems by clinicians has been through compulsion rather than through volition, and that the vast majority of integrated Electronic Patient Record (EPR) systems at Trust level are significantly suboptimal in daily use. There are nevertheless bright spots, such as the national PACS system.

My own Trust in Southampton has been at the forefront of IT innovation since the mid 1990s. It has a large, complex and data rich digital estate. Digitally aware clinicians engage in a continuous collaborative discussion with our IT managerial colleagues as to how best to identify and address the continuing shortcomings in our existing systems, particularly in relation to the quality of the clinician-facing interfaces.

The Scourge of the PDF Document

A key element in this debate has been the recognition of the need to move on from systems that merely "do things", such as move documents, reports and images around the hospital's virtual IT estate. In the process of moving from paper to electronic clinical records, the initial solution has been simply to capture hand-written documents and reports in PDF format, and then to present them to the clinician in a busy clinic in list mode.

Unfortunately, all of us with any experience of such methodology can testify as to how slow and debilitating the trawl through PDF documents can be as a means of accessing key clinical information, when compared with speed reading traditional paper record folders.

This "first generation paperless" methodology has substantial and generally hidden productivity costs which have yet to be widely recognised. In my own clinical service, we found that we needed to drop five outpatient slots per clinic to accommodate the time spent on looking up and cross referencing electronic documents as compared to traditional methods. This prompted rapid administrative recognition of the challenges of digital change.

This observation has led to the adoption and testing of novel IT tools for data presentation and visualisation such as the University Hospital Southampton (UHS) Lifelines EPR visualisation system (Fig 1); and the rigorous classification of all further documents using metadata to define their contextual relevance in daily use. This is both through in house design and through discussion with our preferred commercial suppliers.

<u>The ASGBI and the Digitally Educated Surgeon</u>

It is clear that there is much work to be done to make best use of the digital transformation of clinical information, and that excellence in this process will produce substantial efficiency gains for the NHS. The specific design needs of the clinician end user have been largely neglected to date, resulting in time loss and frustration within the "Digital Compulsion" environment within which most of us work.

It is therefore necessary for surgeons to understand the possibilities of excellent, user focussed design in the efficient delivery of public sector health care; and to engage with management colleagues and information specialists at all levels in the Health Service in the development of better systems than are presently on offer. Success in this radical evolutionary process could and should lead to a transformation in service delivery across health and social care in the UK and beyond. Failure in design and implementation will lead to needless costs and greater inefficiencies, as the laws of unintended consequences are once again enacted across the NHS IT estate.

The ASGBI will continue to play a significant role in the education of surgeons in this complex subject area (3), and to build on the achievements of the theme of the Digital Surgeon of the 2016 Belfast Conference, where we were delighted to run both a plenary session on Clinical Informatics, and a symposium on Health Technology in partnership with the Engineering and Physical Sciences Research Council, about which there are other articles in this issue. We encourage all with experience, knowledge and insights in the subject area to contribute to the educational process through articles for future editions of the Journal.

References

1. UK Government Digital Service Design Principles: https://www.gov.uk/design-principles
2. A strategy for Digital Public Services in New Zealand: Search www.ict.gov.nz
3. Rew DA. The Clinical Informatics Revolution. An Issue in Professional Practice of the ASGBI. http://www.publications.asgbi.org/ciiipp_04_15/clinical_informatics_iipp.html

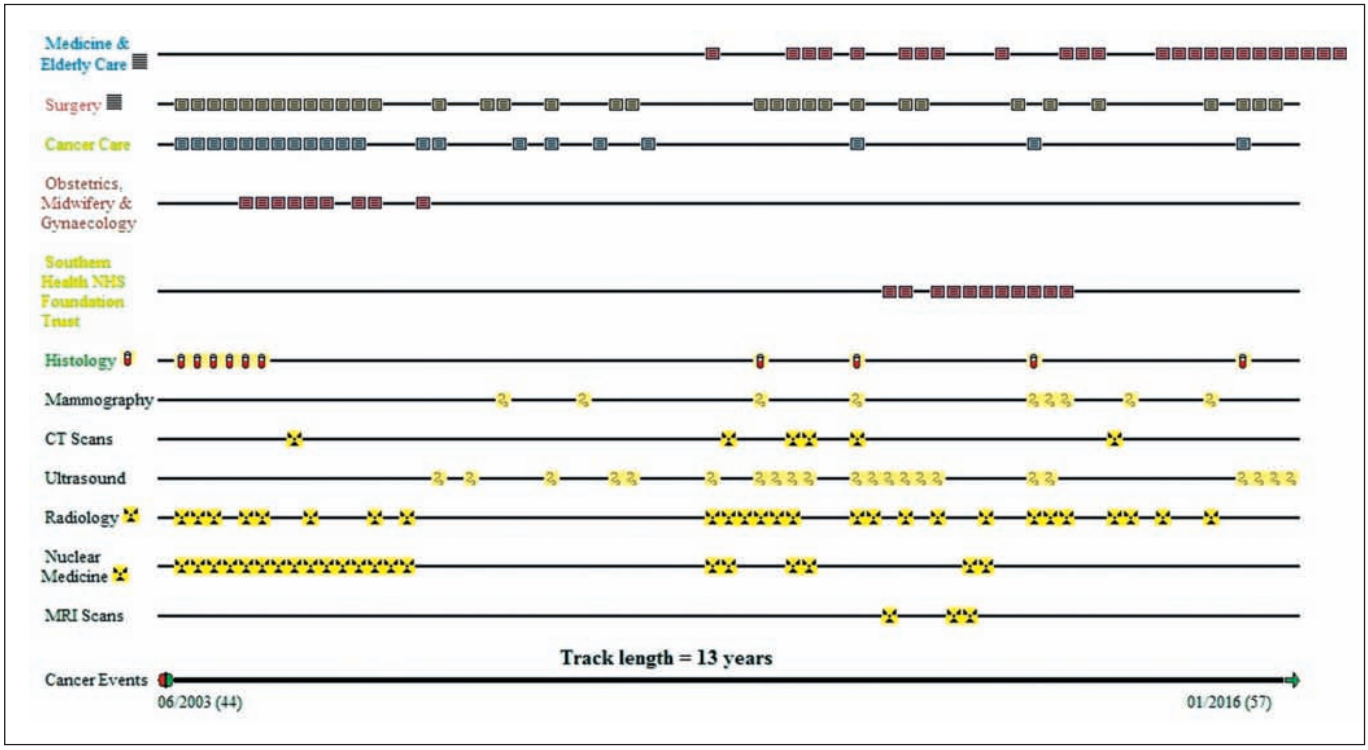

Figure 1: The UHS Lifelines graphical EPR interface, as an illustration of user focussed design in the paperless transition. This system is in live and real time daily use on an agile, continuously iterative test and development basis in selected clinical services at University Southampton. This particular record illustrates the documents generated in the course of treatment of a patient with bilateral breast cancer in June 2003. Clicking on any document opens the underlying document. All subject timelines (eg Surgery, Cancer Care) for which documents exist are displayed. It is apparent how quick and intuitive such a model can be in clinical use. Much can be learned about the pattern of health in any one patient from inspection of the patterns of documentation alone, before inspection of specific documents and reports.

SAS SURGEONS: A CASE FOR CHANGE!

Ms Gazalla Liaqat
ASGBI Associate Representative

"SAS" or "Staff, Associate Specialists and Specialty doctors" are often known by various names - Career grades, Non-Consultant Career Grade (NCCG) and middle grades, Associate specialists, specialty doctors, staff grades and clinical assistants. They usually have the capacity and opportunity to work independently within agreed lines of responsibility, and play a broader role in their organisations through teaching as well as audit.

The NHS depends on SAS doctors

SAS surgeon's responsibilities and training vary greatly. Their work ranges from major complex surgery to minor diagnostic procedures and outpatient services. The majority carry out elective and routine surgery, their contribution proving vital in achieving targets. Many adopt a true generalist approach, working across specialised fields that are instrumental in research and training juniors with managerial, training and committee activities. Unfortunately though, it is a fact of life that the majority of those practitioners who enter the grade will remain there until they retire, as the opportunity to progress to another grade is limited. Hence, "A case for change"!

Change can be exciting and exhilarating but can also be frightening or threatening, and success or failure depends on the way that change is managed. Data for SAS surgeons has so far been scarce and empirical evidence concerning SAS doctors' working conditions is limited. But new opportunities have emerged on the horizon in recent years, which we must continue to seek out and act upon. The New UK Charter to Support SAS Doctors' Professional Development Needs (RCPE June 2013) is one of many examples. The Wales Deanery initiative <http://www.walesdeanery.org/index.php/en/wales-deanery-specialty-schools/sas-doctors.html> supported 60 SAS doctors in nine surgical specialties gaining access to tools from the RCS (Royal College of Surgeons of England **www.rcseng.ac.uk**) for their career planning and professional development.

To facilitate change, the Association is currently calling on all of its Associate Fellows to come forward, and we are appealing to our colleagues to get in touch as we wish to create a new workforce database for our SAS colleagues. We are aiming to identify this workforce that is working on the coalface and is no less important than any other member group of the Association of Surgeons of Great Britain and Ireland. Let us know about the educational and training needs, as the revival of morale and the destigmatisation of the grade will be a first step in catalysing change. This change needs to come from us, as the label of the forgotten tribe must go.

If you wish to get in touch, please contact Sarah Jukes (**sarahjukes@asgbi.org.uk**) who will forward your message accordingly.

MACHINE PERFUSION: THE WAY FORWARD IN ORGAN PRESERVATION, ASSESSMENT AND RE-CONDITIONING

Professor Vassilios Papalois
ASGBI Director of Communications and Informatics-Elect

Introduction

Solid organ transplantation constitutes the definitive treatment for end-stage organ failure with excellent long-term outcomes. However, transplantation has been the victim of its own success; there is huge gap between the number of patients on the waiting list for a transplant and the number of available organs. This is a major worldwide problem that has led to increasingly longer waiting lists. Waiting is not just waiting. Waiting equals death. As one characteristic example, in the UK, 3 patients die every day due to lack of organs to transplant them. When we all will be celebrating in a few weeks' time the coming of 2017, we need to remember that 1,000 patients lost their lives in 2016 waiting for a transplant.

Attempts to expand the donor pools have focused on the use of "marginal" or extended criteria donors: donation/ retrieval of organs after circulatory death (in contrast to the controlled conditions of brain stem death), elderly, obese, with co-morbidity such as hypertension, arteriopathy or diabetes.

Since the 1960s, the most commonly used method of preserving organs for clinical transplantation has been static cold storage (SCS). Several preservation solutions have been used to limit ischemic damage and preserve cellular integrity and organ function. SCS with conventional preservation solutions has reached its plateau in preserving allografts prior to transplantation and is certainly anything but ideal for organs retrieved from extended criteria donors. This has led to the re-emergence of machine perfusion (MP) as an increasingly popular and potentially superior method of preservation.

Machine perfusion of an organ traditionally generates a controlled recirculating flow of preservation solution at hypothermic temperatures in the 0°C to 4°C range. This continuous flow permits perfusion of the organ promoting a thorough washout of blood and equilibration of the interstitium with the perfusate medium, delivery of oxygen and nutrients, and removal of toxic metabolites. In addition, it allows for real-time assessment and provision of metabolic support during preservation. Machine perfusion also allows for pharmacological intervention, and more importantly, for graft viability assessment through the use of parameters such as perfusion dynamics (machine flow rates, vascular resistance) and perfusate biomarkers.

Machine perfusion in kidney transplantation

Kidney grafts from extended criteria donors have increased chances of primary nonfunction as well as delayed graft function that has a detrimental effect in long-term outcomes. This has led to the need to develop organ preservation systems, which allow for preservation and assessment of kidneys prior to transplantation. The two main preservation methods of SCS and hypothermic MP are based on the principle that lower temperatures result in lower tissue oxygen demands and in slowing of the chemical and physical processes generating fewer toxic metabolites and better preservation of organs. Compared to SCS, MP has the disadvantage that it is more expensive and requires an operating technician. However, it has the major benefits of being associated with reduced risk of delayed graft function and with enhanced graft survival especially for kidneys from extended criteria donors. A large multi-centre randomized control study (RCT) of MP versus SCS from the Eurotransplant region, with clear level A evidence, showed that MP is associated with a shorter duration of delayed graft function and better graft survival. However, contradictory evidence has emerged from a UK RCT comparing MP to SCS where no observable benefit was found regarding delayed graft function or graft survival for MP kidneys. A very important factor to consider when comparing the Eurotransplant and UK studies is the difference in timing to the start of MP. In the UK study, kidneys randomized to MP underwent an initial period of CS of several hours for transport to the perfusion laboratory before start of MP; while in the Eurotransplant trial, kidneys underwent immediate perfusion after retrieval°™ suggesting the clinical benefits of MP may require immediate, rather than delayed, use of MP. The National Institute for Clinical Excellence (NICE) recognizes the potential benefit MP could offer for kidneys from extended criteria donors and thus, they recommend MP as an option preservation for those kidneys in the UK.

Machine perfusion pressures

One of the first problems that became apparent during development of organ preservation methods was the rising perfusion pressure in the presence of a falling flow rate, which could eventually lead to graft failure. Further research demonstrated that while low pressures can lead to underperfusion, high

perfusion pressures are associated with shear stress and endothelial damage. Furthermore, porcine kidneys exposed to higher pressures before transplant have higher endothelial expression of von Willebrand factor, a marker that is found in renal endothelial cells of patients with hypertension and acute or chronic renal failure. In addition, experiments in a porcine transplant model demonstrated that kidneys exposed to high perfusion pressures (60/40) were more likely to sustain diffuse vascular damage with recipient renal failure while lower pressures were associated with a more favourable posttransplant outcome.

MP experiments in porcine models have great translational value in clinical practice. From their own research and clinical experience, the Newcastle group developed their viability criteria for renal allograft MP and recommended perfusion pressures of less than 60 mm Hg. Importantly, in the recent Eurotransplant RCT, all MP kidneys underwent perfusion at pressures of 30 mm Hg.

Machine perfusion flow rate

Examination of the effects of different perfusion flow rates (0.4 to 0.65 mL/min/g, 0.65 to 0.9 mL/min/g, and more than 0.9 mL/min/g) on immediate function, delayed graft function, duration of acute tubular necrosis, postoperative creatinine, and on the number of postoperative days required to reach a urine output greater than 2000 mL/d showed that kidneys with the highest perfusion flow rates were superior in all 5 fields. The Newcastle viability criteria recommend a flow rate over 25 mL/min/100 g of tissue.

Resistance indices

Increasing resistance to flow with time during MP indicates a poor outcome. This was confirmed in studies that looked at the resistive index in human kidneys with immediate function compared to delayed graft function. It was demonstrated that in the former group, the decrease in the resistive index (a measure of resistance to arterial flow within the renal vascular bed) occurred more rapidly, suggesting that ischaemically damaged kidneys require prolonged pump perfusion time. Use of renal resistance to determine graft suitability for transplant is variable, with published cutoff values determined empirically at individual institutions. Analyses from the recent Eurotransplant trial showed renal resistance to constitute a predictor of graft outcome and suggested it may be of prognostic value. Specifically, renal resistance was found to correlate with delayed graft function and graft survival with a threshold of renal resistance of 0.28 at the end of perfusion correlating with a higher 3-month serum creatinine level and 17% poorer graft survival.

Perfusate biomarkers

Research has focused on the use of machine perfusate biomarkers for pre-transplant in vitro assessment of kidney viability. Evidence remains controversial and based largely on animal models. Biomarkers most likely will be incorporated in clinical viability scores, rather than be used in isolation. Some of the more-established work has focused on glutathione S-transferase (GST), lactate dehydrogenase (LDH), N-acetyl-_-Dglucosaminidase, alanine aminopeptidase, aspartate aminotransferase (AST), and heart-type fatty acid binding protein.

Glutathione S-transferase (GST) is found in the kidneys and is involved in detoxifying metabolites and conjugating glutathione. The 2 subtypes, _-glutathione and π-glutathione, found in proximal and distal tubules are released during ischemia. Proximal tubules, being metabolically more active, are more vulnerable to hypoxia, making _-glutathione a more-sensitive marker and a potential tool for pretransplant assessment of kidney viability. Quantification of total glutathione is technically easier and often is used as a surrogate marker of _-glutathione levels. During MP, _-glutathione levels correlate with warm ischemia time; with prolonged ischemia being associated with higher levels. Similarly, levels are lower in functioning, compared to non-functioning, grafts. Further research into the functioning of MP kidneys from

extended criteria donors has demonstrated that GST levels are significantly higher at the end of MP in kidneys with delayed graft function compared to kidneys with immediate function. The Newcastle clinical viability protocol recommends a GST content at 4 hours of less than 200 IU/L/100 g of renal mass.

Lactate dehydrogenase (LDH) is a nonspecific marker of cellular injury. It was hoped that its level in kidneys undergoing MP would reflect the extent of ischemic injury. However, research models have not confirmed a significant correlation between LDH and graft function/nonfunction and did not have an independent predictive value of graft failure in the first year posttransplant. Therefore, its use as a biomarker may be of value in the context of other determinants of graft function, but it is unlikely to have much independent predictive value.

N-acetyl-_-D-glucosaminidase is a lysosomal enzyme. There is limited work looking at N-acetyl_-D-glucosaminidase levels in renal perfusate of MP grafts and their correlation with ischemic damage. Research showed that N-acetyl-_-D-glucosaminidase levels constitute a risk factor for delayed graft function but have no independent predictive value of graft failure in the first year post-transplant.

Alanine aminopeptidase is a peptidase located in renal cells and involved in cell regulation. Like GST, it is excreted in the urine secondary to renal tubular damage and has been investigated as a pre-transplant marker of post-transplant renal viability. Models of porcine donors after circulatory death have demonstrated a significant correlation between warm ischemia time and levels of alanine aminopeptidase in the urine of renal grafts subjected to ischemic conditions. However, research in human kidneys, did not demonstrate a correlation of alanine aminopeptidase with primary nonfunction or with delayed versus immediate graft function. As such, based on current research, alanine aminopeptidase is a poor pre-transplant predictor of transplant outcome.

Aspartate aminotransferase (AST) is an enzyme seen in hepatic and renal parenchymal cells that has been studied in the context of MP. Most research has focused on its use in liver transplant, but there is also evidence for its applicability in renal transplants. Its presence in the renal perfusate of MP kidneys is thought to represent acute damage to parenchymal cells. Higher levels are associated with an increased risk of delayed, as opposed to immediate, graft function. This relation is thought to be the result of the association of AST levels with prolonged ischemia time.

Heart-type fatty acid binding protein is found mainly in the heart, and in smaller amounts, in the small intestine, the skeletal muscle, and the distal tubules of the kidneys. Most research has focused on its use in identifying myocardial injury, and work in MP of renal grafts is still in the early stages. In the kidneys, it is located in the distal tubule cells and is involved in the uptake of fatty acid from the cytosol into the mitochondria. Significantly higher levels of hearttype fatty acid binding protein have been found in the renal perfusate of MP grafts that have developed delayed graft function. Here, heart-type fatty acid binding protein levels were found to be independent risk factors for delayed graft function, much like GST and N-acetyl-_-Dglucosaminidase.

Clinical protocols

Clinically, several different parameters need to be taken into account, collectively, rather than individually, to assess graft viability, and protocols differ between centres worldwide. One of the most established criteria in the UK is from the Newcastle group. These include a flow rate greater than 25 mL/100 g, with a GST less than 200 IU/100 g, a surface temperature ideally lower than 14°C, a perfusion flow index greater than 0.4 mL/min/100g/mm Hg,17 and a corresponding decreasing resistive index. Ideal perfusion of allografts is through low pressure pulsatile flow in the 30- to 40-mm Hg range, attempting to limit oedema and barotrauma. Though perfusion dynamics may provide an indication of the risk of postoperative

complications and graft survival, the determinants of transplant outcomes are multifactorial and predicting outcomes based on isolated perfusion dynamics is not without error. Risk scores for delayed graft function and graft survival based on donor, procurement, and recipient factors have been proposed and it would seem useful to add perfusion dynamics and perfusate biomarker levels to these criteria to improve predictive accuracy and provide a multidimensional assessment of kidney viability. Further research could focus on developing these scoring systems and determining the most useful perfusion parameters and biomarkers to be included.

Machine perfusion in liver transplantation

Although integrated into clinical practice in kidney transplant, MP has only recently come under closer scrutiny in transplant for other organs. The advantages of using MP are common to kidney and liver transplantation, but there also certain differences. These differences mean that renal MP protocols cannot be applied directly to liver transplantation, but need to be adapted to account for these distinctions, which include hepatic and portal systems flow competition, hepatic sinusoidal endothelial cell susceptibility to damage, high liver metabolism, the MP effect on preventing biliary tree injury, and Kupffer cell activation.

Hepatic MP has demonstrated some worth in animal models, particularly porcine models, by demonstrating reduced cellular necrosis and hemodynamic stability. However, the optimal protocol has not been determined. Currently, all systems are purpose-built, such as the Groningen Liver Perfusion System and the Organ Recovery Systems Device. The question of optimal temperature (normothermic, hypothermic or sub-normothermic), optimal flow rates and perfusion pressures (high or low, pulsatile or continuous), single or dual vessel (hepatic artery and/or portal vein) perfusion, perfusate oxygenation, and different perfusate compositions are still under investigation.

Clinically, SCS is the standard preservation method for liver transplantation. Since the late 1960s, when Brettschneider as well as Starzl trialled MP, there has been little use of MP for human livers. The recent success of MP in renal transplant, and use of MP in animal models, has led to growing interest in MP application in liver transplants. Avery interesting phase I prospective cohort study compared 20 adults who received hypothermic MP - preserved livers and a matched group transplanted with SCS livers. University of Wisconsin solution was used for SCS and Vasosol R solution for MP. The different solutions may have contributed to any beneficial effects of perfusion over CS, as Vasosol has added antioxidants, vasodilatory and metabolic support. Notwithstanding this, the study found early allograft dysfunction rates were 5% in the MP group versus 25% in controls (P= 0.08) and serum liver injury markers were significantly lower in the MP group. Although a small study, its results definitely give reason for further larger studies.

Machine perfusion in pancreatic transplantation

Pancreatic transplantation is indicated for two main subsets of diabetics: those with end-stage renal failure, and brittle diabetics who continue to have multiple severe episodes of hypoglycaemia unawareness. Simultaneous pancreas-kidney transplant is used in the former group, whereas pancreas transplant alone or islet cell transplant is considered in brittle diabetics.

Historically, the success of whole organ transplant has been considerably greater than islet cell transplant. Improved surgical techniques and preservation methods as well as modern immunosuppression regimens have improved whole pancreas graft transplant postoperative survival rates to 95% at 1 year, and 90% at 3 years. Benefits of whole pancreas transplant include good glycaemic control, insulin independence, treatment of hypoglycaemia awareness as well as non-progression and eventually long term improvement of secondary diabetic complications. Islet cell transplantation remains an attractive alternative to whole organ transplantation for several

reasons. Whole organ pancreas transplantation is major operatio and carries greater perioperative risk. Furthermore, isolated islet cells provide the benefit of insulin production but do not have the exocrine cell-related morbidity of whole pancreas transplant. The most-recent increased interest came from the development of the Edmonton Protocol, which has given rise to clinical trials involving deceased-donor pancreases, whereby the islets are infused via the portal vein. This results in persistent insulin secretion and short and medium term but not -long term insulin independence. Additionally, this protocol of islet transplantation requires multiple transplants to attain enough beta cell mass, unlike whole organ transplant that requires only one transplant. There is evidence that islet transplantation is a viable treatment for certain patients and indeed the UK National Health Service now funds islet transplantation, particularly for patients severe hypoglycaemia unawareness.

The preservation method of choice for pancreatic grafts aimed for either whole organ or islet transplantation is currently SCS. Despite the definite benefits of transplantation, the shortage of organs is a predominant factor in limiting pancreas and islet transplants. This, combined with the increased use of extended criteria donors, has led several groups to attempt to use the success of MP with kidneys, in maintaining and assessing the quality of pancreatic grafts. As with other organs, MP confers the advantages of possible viability testing, perfusing the organ with substrates for metabolism, and removing toxic products.

However, there are certain reasons why renal protocols cannot be directly translated to pancreatic grafts. The main physiological difference with the pancreas is its low flow and pressure environment. This means that MP can damage the fragile vascular endothelium leading to platelet activation and thrombosis on graft reperfusion. There were some early attempts in the 1970s to develop a protocol with MP and low perfusion pressures, but until recently, MP has been out of favour, as results from some early experiments favoured cold storage, which was comparably straightforward.

Interest in MP has been recently revitalised with the development of a model using porcine pancreases perfused in the RM3 perfusion machine with University of Wisconsin solution. Perfusion was pulsatile but with low perfusion pressure and the perfusate was enriched in mannitol to minimise graft oedema. This model involved pancreases undergoing a period of warm ischemia (uncontrolled conditions of retrieval in an abattoir) followed by a period of SCS (transfer to the laboratory) before a final face of hypothermic MP. Those experiments demonstrated that post-perfusion reduction in islet and acinar cell damage. Furthermore, this was the only group to take the first steps toward examining the possible advantage of perfusate markers. They measured intrapancreatic resistance and flow (both renal perfusate markers) along with the biopsies and used these as markers to optimize conditions used in their model. Despite the sparsity of work in this area, there is promise for using MP and perfusate markers for preserving, assessing and re-conditioning pancreatic grafts.

Machine perfusion in lung transplantation

As with other solid organ transplants, increased demand for lung grafts has led to alternative sources of organs including marginal donors. In this group, donor characteristics such as advanced age, smoking, contusion, and infiltrate render these grafts suboptimal.

Lung grafts are classically stored in preservation solutions, with multiple solutions currently available, of which an extracellular solution appears to provide superior results. Ex vivo lung perfusion (EVLP) is currently being explored with attempts in the past largely hindered by oedema formation and increased pulmonary vascular resistance secondary to circuit-induced injury of the vasculature and epithelial membranes. More recently, the development of the Steen solution, a hyper-oncotic fluid, with a haematocrit of 15%, allowed to create a successful ex vivo lung

evaluation system for donation after cardiac death. Based on that, research groups used the Steen EVLP model to assess donor lung function in pigs in terms of blood gases from the pulmonary artery and the left atrium, mean left atrial pressure, mean pulmonary artery pressure, maximum ventilation pressure, and end-tidal CO2. They confirmed that this constitutes a sensitive and reliable method for evaluating pulmonary graft function pre-transplant. This model was also used to assess 6hr ex vivo perfusion potential in lung preservation. The experiments demonstrated that this is feasible, but that in view of increased pulmonary artery and ventilation pressures during this time, further work is required.

While 6 hrs may be sufficient for assessing graft function, it is not enough for pre-transplant conditioning. To address this issue, the acellular Steen solution was used to extend normothermic ex vivo lung perfusion to 12 hours and successfully demonstrated preservation of porcine lung function. Those experiments focused on pulmonary vascular resistance, peak airway pressure, lung oxygenation capacity, and airway plateau pressure. In another study, they also could confirm the superiority of EVLP compared to SCS regarding preservation-associated lung injury. These experimental findings were applied to the clinical setting where Cypel looked at the transplant outcomes of high-risk donors who were stable after 4 hours of normothermic ex vivo lung perfusion and demonstrated results comparable to conventionally selected lungs. The two groups were compared in terms of primary graft dysfunction, 30-day mortality, bronchial complications, duration of mechanical ventilation, and length of stay in intensive care unit and hospital.

It is hoped that these successes in EVLP could pave the way for ex vivo lung repair pre-transplant. Regarding pre-transplant, after a cardiac arrest, lungs are particularly susceptible to injury secondary to aspiration, oedema, infection, and contusion. The current challenge posed is whether ex vivo lung perfusion can be used to correct these and improve graft quality. Research in this area is still in the early stages. Extracorporeal membrane oxygenation circuit with the Steen solution, mixed with erythrocytes has been used in lungs that previously had been rejected for transplant. 6 successful, double-lung transplants were performed. The success of reconditioning was thought to be based on the solution's high oncotic pressure, which dehydrated oedematous tissues and prevented oedema formation in re-perfused tissue.

Machine perfusion in heart transplantation

Cardiac grafts have traditionally been preserved with SCS. While this method has provided good initial results, it is associated with anaerobic metabolism and does not allow for prolonged graft storage and transport, and therefore necessitates short intervals between graft retrieval and transplantation. Furthermore, prolonged ischemia time, a consequence of prolonged storage, has been associated with poor 1-year survival with primary graft failure being a leading cause of death within the first month of transplant. As with lung preservation, it is hoped that MP of cardiac grafts will allow for prolonged organ storage, improving the quality of the graft, and preventing early posttransplant complications.

Cardiac metabolic processes are complex and remain poorly understood, especially during graft preservation. MP provides the graft with continuous supply of an oxygenated solution at room temperature allowing for aerobic metabolism. This is thought to preserve myocardial transmembrane ionic gradients, prevent lactate and adenosine build-up, allow for reparative processes in the ischemic myocardium and promote excretion of toxic metabolites. Animal studies looking at lactate and creatine kinase-MB isoenzyme levels in MP compared with SCS have shown significantly lower levels in the former group. The effect of continuous washout could be contributory to these results. Low creatine kinase-MB isoenzyme levels imply less myocardial damage, while the lactate levels are suggestive of preserved aerobic metabolism. The significance of lactate has been demonstrated in coronary artery bypass surgery, where lactate release during reperfusion was found to

constitute an independent predictor of myocardial dysfunction. It has been demonstrated in canine models that continuous perfusion is superior to SCS in terms of postreperfusion myocardial recovery. Grafts preserved with MP also had a higher tissue pH and ATP levels suggestive of less oxidative damage and energy depletion.

One of the main reported disadvantages in the animal studies is the association of MP with increased myocardial oedema with some studies showing a variation depending on the preservation solution. This association is thought to be mediated by MP dependent hydrostatic pressure and perfusate colloid oncotic pressure and further compounded by the lack of lymphatic flow to the arrested heart. It is also suggested that lack of physiological variation in coronary artery flow and pressures also may contribute to oedema formation, which is thought to be associated with impaired posttransplant diastolic function recovery.

Recent work in organ transplant technologies has led to development of the Organ Care System (OCS). This is a portable warm blood pulsatile perfusion system that allows for organ preservation by pumping warm, nutrient and oxygen-rich blood through the organ. This is thought to mimic the body's physiological state and allow for prolonged preservation. The PROTECT (Prospective Multi-Centre European Trial To Evaluate the Safety and Performance of the Organ Care System for Heart Transplants) trial looked at transplantation of 20 grafts maintained with OCS, and showed 100% survival and faster recovery and a shorter ventilation after surgery. There were two cases of acute rejection and two of transient left ventricular dysfunction, which resolved.

Conclusions

The use of grafts from extended criteria donors is one of the main ways to solve the issue of organ shortage. This requires advanced methods for preserving, assessing and re-conditioning those organs prior to transplantation to maximise the chances of good post-transplant outcomes. MP is clearly a ground-breaking way that allows us to achieve those goals. The great and successful experience gained so far in kidney transplantation is rapidly expanding in other solid organ transplants. The results so far allow for optimism!

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WHEN SURGEONS WEEP: PSYCHOSOCIAL IMPACT OF A SURGICAL COMPLICATION UPON THE SURGEON: A STRUCTURED ASGBI SURVEY

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When Surgeons Weep: Psychosocial Impact of a Surgical Complication upon the Surgeon: a structured ASGBI survey

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Introduction: This study of the psychosocial impact of a Surgical Complication (SC) upon the surgeon emerged from an earlier survey of ASGBI members [549] perspective on patient safety issues' [1,2] and a qualitative study that explored the impact of a SC upon 27 surgeons [3]. We have drawn upon these studies by incorporating some of the unpublished open-ended findings from the ASGBI project [1-3] into a structured survey of ASGBI members to explore their SC experience.

Four significant themes emerged between surgeons who reported that:-

1] Managers were generally Supportive versus Not,

2] Surgeons who became more Risk Aversive versus Not,

3] Surgeon's Family Negatively affected versus Not, and,

4] When External Pressures contributed to SC versus None reported.

Methodology
Amalgamating statements from the earlier studies [1-3], a new self-administered anonymous online survey questionnaire was sent to all members of the ASGBI to ask about any personal impact following a SC.

There were 23 structured questions plus open-ended questions to state in their own words - 'What was the worst thing about SC?' .'Where there any positives that emerged?" and, "Any general comments' about SC?' to hear the 'voice of the surgeon's'.

Results
Of 116 respondents, 104 were consultants and 12 Junior Doctors; 87% were male; most were very experienced; 29% between 11-20 years and 57% more than 21 years;

The majority (72%) of SC were life threatening, 37% leading to delayed discharge, 27% left with some residual disability and 15 (13%) died, thirteen within 2 weeks of surgery. Assuming an average of 8 operations a week over 40 weeks yields 37,120 patients giving a SC rate of 0.31%, considerably lower than the 0.78% from a US study of 9274 consecutive operations [4].

The SC fell into three broad categories:- *Errors in theatre* (54%) consisting of twenty-one anastomotic Leaks, 12 bowel perforations, 11 abdominal bleeds, 9 bile duct injuries, 4 accidental cutting of vessel, 3 cutting the urethra, 3 cutting a nerve, 3 bowel obstructions, 3 splenic injuries. The Trainees had 7 anastomosis leaks, one mistake needing a second operation.

External Pressures (34%): Consisting of Lack of time and resources 22, ten equipment failures including 3 diathermy burns and eight cases added to list without prior consultation.

Post-Op Complications (16%) These involved 7 post-operative organ failure; 9 infections and 6 graft operative thrombosis/ necrosis. Some patients had problems in both the above categories.

Table [1] lists the cohorts total response to the structured statements and are thematically grouped relating to:-

(i) *Organisation and Management*:- How Trusts deal with SC impacts upon staff morale (96%); a 'no blame' ethos does not exist (63%), mangers were generally supportive (37%) but Trusts primarily concerned with public relations (28%)

*(ii) Psycho-social:-*Support of colleagues was invaluable (81%), Consultants accepted responsibility for the team (77%) but worried about litigation (76%). Their health (41%) and that of their family (37%) were negatively affected, 16% felt isolated and a minority felt they needed alcohol or medication to cope (10%).

(iii) Outcome following SC: The SC undermined surgeon's confidence (55%). Some positives emerged to improve practice (46%), others became more risk aversive (44%), some found it hard to discuss with patients and relatives (38%), conversely some relatives were understanding as they appreciated the risk (37%) but more than a quarter (28%) reported that despite identifying the problem leading to the SC nothing was subsequently done about it.

(iv) Role of Colleges & Association:- Half said the College should advise in coroners court (52%) and that the Association should provide more pastoral care (47%).

(v) External Pressures:- Lack of time and resources contributed to the incident(19%), Faulty equipment (9%) and cases added to list without consultation (7%).

Respondent Sub-Groups

Risk Averse Respondents (44%) v Not Averse. More often worried about subsequent litigation (86% v 57%), greater undermining of their confidence (61% v 38%), greater negative impact upon their family (57% v 11%) and more often felt isolated (29% v 8%).

Outcome issues- More agreed that a 'no blame' ethos does not exist (84% v 41%); more reported that little was done to change things (45% v 11%) and had no opportunity to discuss how to avoid such situations (31% v 11%).
Organisation & Management- More thought that Trusts' main concern was public relations (49% v 8%) than anything else and managers were less supportive (29% v 46%).
A majority thought there should be College advice in coroner's courts (75% v 32%) and College should offer pastoral care (63% v 30%).
Finally, more often reported that equipment failure had contributed to the incident (18% v 5%).

Managers Generally Supportive (37%) v Not Supportive . They were significantly less likely to need support in coroner's court (40% v 86%), or College pastoral care (33% v 68%). Were less risk averse (35% v 68%), less thought little had been done to change the situation (12% v 55%) less reported no opportunity to see how avoid such situations (12% v 59%).

They had fewer psychosocial problems, less family impact (28% v 59%) and less feeling isolated (9% v 41%).

There was less agreement on resources issues (7% v 41%) and less that Trusts' concern was primarily public relations (7% v 77%).

Interestingly 77% Consultants reported managers were supportive to 33% of Junior Doctors.

Event Negatively Affected my Family (36%) v Not. They worried significantly more about litigation (88% v 68%), their health being affected (76% v 15%), their confidence being undermined (74% v 36%), were more isolated (29% v 6%) and to cope, resorted more to alcohol or medication (19% v 4%).
More reported "nothing had been done to change the situation (48% v 17%); more urged College court involvement (69% v 34%) and for pastoral care (62% v 36%). More thought the Trusts concern was about public relations (50% v 13%) and had fewer supportive mangers (29% v 45%).

External Pressures Group (34%] v Not.
More often sought Association advice in coroner's court (79% v 40%) and for pastoral care (65% v 41%). They were also more often risk averse (65% v 34%), reported that nothing was done to change the situation (50% v 18%) or had no opportunity to discuss how to avoid such situations (45% v 12%).
Whilst more reported their health was negatively affected (54% v 18%) and more felt isolated (32% v 10%).

Open-ended Responses.
Space limits the ability to give justice to the richness of the 'voice of the surgeon, hence only a few examples.

Worst About SC

When affecting their family (88).

Examples "Anxiety, distress and sleepless nights worrying about the patient". *"Often doing extra checking and going back to the hospital as becoming uneasy about delegation".*

"They had to cope with my grumpiness and increased absences as in my anxiety I stayed on longer or went back to the hospital".

"But the importance of my family support can't be over-stated".

Concern for Patients and Relatives (60**).** "*First was the patient's suffering (both in themselves and financially as he was self-employed). Second colleagues within the hospital used the incident as 'points scoring' but with ensuing self-criticism".*

"I was shattered for the patient- I admit I cried alone".

"Then one identified steps 'inside one's head' and asks that if you could have done differently, perhaps it needn't have happened".

"I couldn't stop worrying about the patient and their family"

"The feeling that you have failed your patient despite having tried your best to save their life".

Respondent's Distress (54). *"I now understand how fragile our professional lives are, potentially a single complaint away from suspension with its concomitant stress and shame".*

Colleagues/ Trust Response (39**.)**
Concerned that the event had become divisive for team.

"Litigation caused by being bad mouthed... aggressive stance of 'expert witness' who haven't needed to get out of their beds for emergencies for years".

"The lack of support from the Trust when called to the coroners office". "I learned who to trust and not to trust - quite a surprise". "The managers, nurse managers, medical director and clinical director were 100% behind me... crucially the relatives stayed on side".

"I learned that the hospital will do nothing to support you and it looks after itself".

Event Unexpected & Inexplicable (11).
At the time the event was inexplicable.
"It would happen again in the next patient with the same anatomical pathology and though it was my first in 3000 cholecystectomies, it felt even worse to spoil a perfect record given the published incidence is 1 in 500".

"Unexpected complication and therefore not specifically consented for and therefore technically 'negligent' even though I have performed thousands similar procedures without any incident".

<u>Positives.</u>
Improved Technique/ Organisation *(37)*
"*Changed and improved technique; continue to accept risk but build in time to respond to possible complications and better preparation; learned from experience; reminds one that surgery is inherently dangerous."*

"An increased personal perception that controversial decisions need to be shared with as wide an audience as possible and when cases stray outside one's own personal specialty, outside support should be summoned early"

"Following the SC better equipment was bought ".

"Make sure about instruments and do not operate if not right".

"We threw away all the stock of diathermy forceps, ordered new ones and instituted a system whereby they are routinely replaced after a number of uses. In addition a further check was added to the scrub nurse duty to check the insulation on all electrosurgical devices".

Team Development (37) *The team learned….obtained better equipment, with a cohesive team response….more shared decision and improved consent procedure.*
"Do not be pressurised into helping the hospital out as your 'good deed' will not be supported if a complication occurs"!
"I will check more that staff allocated to tasks know what they're doing".

"Seek to help patient and relatives understand the degree of risk facing us and be more realistic"

"Everyone knew that I would take responsibility for the care of my patients, even when the outcome is bad".

Patient Orientated *(24)* *"The only thing that mattered, the patient finally had a good outcome"*

"*I will continue to operate on high risk cases and learned how to minimise complications*".

"*The support from colleagues within the surgical unit but best of all the grace displayed by the patient and relatives*".

Colleagues Support (18).
"I got great support from consultant colleagues... raised awareness of the problem of doing complex arterial cases in with a lack of appropriate back-up".

"Huge support from my colleagues in my own hospital and also from surgeons in the referring hospital".

None. There were no positives (15).
"Nothing positive. It was misery for all concerned".

General comments (112 respondents made 137 additional comments).
Better and more realistic consent procedure needed to avoid unrealistic patient expectations and requires more time and preparation - 33. Complications are an inevitable part of surgery due to unexpected complications & idiosyncratic patient response - 18. Trainees, patients, media need to understand that complications are not due to negligence – 11.Trainees need to understand complications are part of the surgical experience and learn how to deal with them. Technical/ resource issues – 10. Team and colleagues support vital - 7. Complications dealt with by an independent surgeon to avoid over-reaction of non-medics - 7. Complications are often a systems failure, the effect of many little steps - 7. Minimal effect as ' reflected well' - 6. Suggestions for improvements often ignored because of cost-implications - 5. Team and another surgeon should be consulted about possible complications - 4. Trust should look at surgeon's overall record and not just judge on the rare case - 4. Because of increased pressure and complications respondents are thinking of early retirement - 4. Gets harder to cope with as one gets older - 3. Pressure on reducing complication leads to denying patient possible benefit - 3. Five thought of giving up surgery because of the SC and two told of colleagues who had committed suicide following a SC.

Examples: *"Complications are an inevitable part of surgical practice and only those complications that appear to arise as a consequence of negligent or sub-standard care are legally relevant".*

"Dealing with complications is the hardest bit of a consultant job... no one can tell you how hard it is. It's the bit of the job that sometimes makes me want to give up".

"Complications are no longer considered inevitable consequence of performing high risk surgery. All complications are considered to be avoidable".

"Complications are unavoidable unless the surgeon is under productive, risk averse and never delegates operative responsibilities to trainees".

"Despite the accepted risk that complications are inevitable it makes it no easier when they do".

Response/ Action to SC

"After the event people were queuing up to suggest alterative options...it is so easy to be wise after the event"

"There is an increasing tendency to prioritise low complication rates even when this denies patients chance of beneficial, even life-saving surgery".

"Finger pointing by non-surgeons who set out to punish surgeons even in high risk cases —- yet suggestions for improvements fall on deaf ears as often there is a cost in delivering improvement".

Impact on Surgeon

"No one sets out to have complications and no one acknowledges the aftermath on surgeons, unless you're a psychopath you are bound to suffer too".

"They happen. Blame is often not the way to deal with them. The Trust wants them to manage the patients and put them on lists —— but they take no responsibility when things don't go well".

"The default position of many patients / relatives now is that any adverse events is a direct consequence of negligence".

Patient/Relative Consent Problems.

"Generally I think we underplay and under-sell the risk of procedures".

"Patient information should make it clear that complications are common and do not necessarily imply poor technique".

"We have less and less time to talk with patients in clinic about the operation and risks in detail... A patient is more likely to accept a complication and recover better if they have been fully educated by their surgeon pre-operatively".

Discussion.
Despite the frank nature of the surgeon's responses we do not know how representative they are of the ASGBI membership. The problem of the wide variation in the types of complications as we have no details about whether the patients were high risk or had previous medical conditions often associated with an adverse outcome [5,6]. Nonetheless, this structured study from ASGBI members adds new understanding of the complexity and impact of a SC upon frontline staff from a cohort of predominately very experienced surgeons.

Main Findings: Respondents who said they became more risk averse, had unsupportive managers, whose health and family were negatively impacted and where there were resource issues – all had worse experiences than respondents to whom these characteristics did not apply.

This study reflects well on the membership, especially when recalling that in the initial study (n 549) all respondents put at the top of 'what's best about being a surgeon' was good patient outcome. Whist, every surgeon mentioned a poor patient outcome as being 'the worst about being a surgeon[8]. Emphasising, just how totally patient-orientated are these surgeons.

The first key practical finding surrounds the 'risk averse' group, not only because it negatively impacted upon their families' health, undermined the team but crucially could lead to high risk patients being denied the opportunity for life-saving surgery. The second is that Supportive mangers facilitate the surgeons and their team's response to the SC.

Furthermore, there needs to be a greater degree of understanding by the general public and patients - in essence to be able to differentiate between human error and repetitive negligence [7].

Many respondents commented about over-the-top media responses, insensitive mishandling by Trust managers who do not understand the inherent multi-complexity and dangers in modern surgery. Yet recent research found the UK significantly reduced adult (55-74) mortality belter than 17 of the other 20 Western countries and the NHS is one of the most cost-effective in the developed world [8] to which results ASGBI members will have contributed, despite operating under comparative under-funding [9]

Nonetheless, surgeons are under enormous pressure when surgical complications occur, which deserves wider recognition and there needs to be a more focused way to develop adequate support and advice during what is the most stressful part of surgery. [10-12]. Self-evidently, continued efforts should be made to reduce surgical complications but not at the cost of an over-cautious league table mentality that could deny high-risk patients a chance for life and managers and politicians should start listening to patients and surgeons.

Surgeon-Patient Paradox: The many comments about stronger consent procedures is understandable. However, it is suggested that this

ignores the *patient's* reality, who might well prefer *not* to know too much and "be scared to death" is a constant dilemma for all involved. However, the authors are former and future patients but this study shows that the concern these surgeons have for their patients, their strong professional ethic and sense of personal responsibility is far better protection for patients, than a bureaucratic and litigious approach. This is the best context for the continued search for improved patient safety but cannot compensate for the comparative international chronic under-funding of the NHS [8].

Acknowledgment: We are indebted to Professor John MacFie for his advice and guidance that led to this study and to the board of the ASGBI for having the confidence to give us permission to survey the membership.

Dedication: Our colleague and friend the late Mr Barrie E Evans, Consultant Surgeon and former President of the Facio-maxillary Surgeons made a major contribution to this study, based on his experience and total commitment to patients but died before the study was completed. Barrie Evans was an internationally renowned surgeon, doing original work with neuro-surgical colleges at the Wessex Neurological Centre. His wit, humour and professional expertise made him one of the most popular of consultants for the medical students and an inspiring example to all in the School of Medicine, University of Southampton.

References

1. Pritchard C, Brackstone J, MacFie J. (2010) Adverse event and patient safety in the operating theatre: Perspectives of 549 surgeons. *Annals of Royal College of Surgeons*; (Supplement) **92:**1-4.

2. Pritchard C & Brackstone J (2009) 'The Voice of the Surgeon' on Patient Safety: The ASGBI Survey. ASGBI Newsletter. 28,34-36.

3. Pinto A, Faiz O, Bicknell C, Vincent C. Surgical complications and their implications for surgeons well-being. *B J Surg* 2013; **100**: 1748-1755.

4. Nandan AR, Bohen J, Chang DC, Yeh D, Kaafarani HM (2016) Impact of major intra-operative adverse events on hospital readmissions. *American Journal Surgery,* doi:110.1016/j.aamsurg.2016.03.06.018 ahead pub

5. Lin HS, Watts, Hubbard R (2016) Fragility & post-operative outcome in older surgical patients: A systematic review. *BMC Geristrica.* doi: 10.1186/s12877-016-0329-8 ahead pub

6. Dalton MK, McFonald E, Bhatia P, Schuster KM (2016) outcomes of acute surgical cases performed at night. American Journal Surgery, do:10.1016/j.amsurg.2016.02.024 ahead pub

7. Wu AW (2000). Medical error: the second victim. The doctor who makes the mistake needs help too. *BMJ,* 320: *726-727*

8. Pritchard C, Rosenorn-Lanng, Hickish T, Wallace MSW (2016) Population Based Study Comparing UK and 20 Western countries efficiency in reducing adult (55-74) Cancer and Total Mortality rates 1989-2010: cause for cautious celebration? *Journal Royal Society Medicine Open,* 1-10. DOI: 1177/2054270416635036

9. Pritchard C, Harding AJE, Rosenorn-Lanng E (2015) Do British and Irish Surgeons Operate Under Fiscal Disadvantage? GDP Health Expenditure in the Western World 1980-2013. *Journal of the Association of Surgeons of Great Britain and Ireland.*47; 21-24.

10. Arora S, Sevdalis N, Nestel D, Woloshynowych M, Darzi A, Kneebone R. The impact of stress on surgical performance: a systematic review of the literature. *Surgery* 2010; **147**: 318-330.

11. Wetzel CM, Black SA, Hanna GB, Athanasiou T, Kneebone RL, Nestel D. The effects of stress and coping on surgical performance during simulations. *Ann Surg* 2010; **251:** 171-176.

12. Boher T, Koller M, Schlitt HJ, Bauer H, German Society of Surgery. Workload and quality of life of surgeons. Results and implications of a large-scale survey by the German Society of Surgery. *Langenbechs Ann Surg* 2011; **396**: 669-676.

Table [1] GENERAL FRENQUENCIES (Respondents n = 116) |Ranked by Highest 'Agree' response.

Ranked Response to Statements	Agree	Unsure	Disagree
Males v Females	88%	0	12%
Consultants v Surgical Specialists/ Trainees	90%	0	10%
1. Trusts should know that how they deal with complications impacts upon the morale of staff.	96%	4%	0
2. The support of surgical colleagues was invaluable.	81%	10%	9%
3. It was necessary for me to accept the responsibility for the team.	77%	3%	20%
4. I worry about the possibility of litigation when a complication occurs.	76%	5%	19%
5. A `no blame' ethos does not exist.	63%	18%	19%
6. The complication undermined my confidence for some months afterwards.	55%	12%	33%
7. If a surgeon has to attend a coroner's court someone from the Colleges/ Association should be there for advice.	52%	27%	21%
8. Colleges or Associations should provide more pastoral care.	47%	39%	14%
9. Some good emerged as we learned from the incident, which resulted in improvements in our practice	46%	26%	28%
10. After the incident we all became more `risk-averse'.	44%	24%	32%
11. The incident negatively affected my health.	41%	19%	40%
12. I found it hard to discuss with the patient & their relatives.	38%	4%	58%
13=. The relatives were understanding because they knew how high a risk we were taking.	37%	28%	35%
13=. Managers were generally very supportive.	37%	44%	19%
15. The situation negatively affected my family.	36%	18%	46%
16 The Trust's main concern appeared to be Public Relations.	28%	30%	41%
17. Perhaps the worst outcome was despite identifying the problems nothing was done to change the situation.	28%	20%	52%
18. There was no opportunity to discuss how such situations could be avoided.	22%	[9%	69%
19. A lack of time and resources contributed to the incident.	19%	[9%	72%
20. I felt I had no one to turn to for help.	16%	0%	74%
21. I, like others, found myself needing either alcohol or medication to cope with the event.	10%	5%	85%
22. Equipment failure contributed to the incident.	9%	3%	88%
23. The case had been added to my list without prior consultation.	7%	3%	90%

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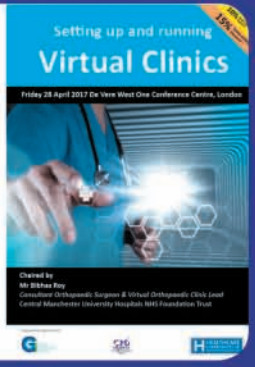

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MEDICO-LEGAL ISSUES

Consent: guidance on the practical consequences of the *Montgomery* decision

Mr Giles Eyre

*Giles Eyre is an associate member of chambers at 9 Gough Square, London having recently retired from practice as a barrister specialising in personal injury and clinical negligence claims. He is a contributing editor to '**Clinical Negligence Claims ®C a practical guide**' (3rd edition ®C July 2015) (9 Gough Square) Giles is co-author of a manual for medico-legal experts, 'Writing Medico-Legal Reports in Civil Claims - an essential guide' (2nd edition - September 2015) (**www.prosols.uk.com**). He frequently gives seminars and workshops, and provides training for medical experts in medicolegal report writing, giving evidence and other medico-legal issues. He blogs on medico-legal issues at* **www.medico-legalminder.net**

In the last edition of the Journal I considered the Supreme Court decision in ***Montgomery***[1] and its implications in medico-legal terms. The Supreme Court changed the law in concluding that the *Bolam* test, that a surgeon is not guilty of negligence if there is a reasonable body of similar surgeons who would have done what he or she has done, is no longer the applicable test when judging whether a patient has been given appropriate warnings of risks prior to surgery. The requirement now is that the surgeon takes reasonable care to ensure that a patient is aware of any material risks involved in any recommended treatment, and of any reasonable alternative or variant treatments, and the court, with assistance from expert medical evidence, will be the final arbitrator of what it is reasonable to tell a patient prior to treatment.

The Royal College of Surgeons has now issued written guidance on obtaining appropriate consent from patients in the light of *Montgomery* (***RCS Guidance on consent (October 2016***)[2]). This is a comprehensive guide on obtaining proper consent in a variety of different situations and provides useful guidance for all surgeons involved in clinical treatment. All surgeons (and indeed all clinicians) would be well advised to read and inwardly digest its contents and its advice.

To comply with the law, to avoid civil claims for damages and to avoid investigation by the GMC most surgeons need to develop a change of approach and need to reappraise how consenting can most effectively be carried out by them in the particular circumstances of their practice:

'*With a robust and well-defined consent process, and by using patient decision aids, checklists and information leaflets provided in advance of the consultation, the time available can be optimised to ensure that patients are empowered with the information they need to make a decision and take responsibility for their care.*' (para 4.11)

Surgeons worry about how they will find the time to comply with the *Montgomery* decision (and, I would add, should worry about how they comply with the existing GMC guidance on consent ®C '***Consent: patients and doctors making decisions together***'[3]). The RCS recognises the issue and gives, as I have done previously, the correct uncompromising advice:

'*The reality facing surgeons in current practice is that time pressures can leave little opportunity to discuss at length the diagnoses or available treatment options. However, this does not change the fundamental legal requirement that surgeons and doctors allocate sufficient time for a discussion that will allow them to understand the individual patient and their needs. According to the judges in the Montgomery case, 'even those doctors who have less skill or inclination for communication, or are more hurried, are obliged to pause and engage in the discussion which the law requires'.*' (para 4.11)

When speaking on consent and the implications of *Montgomery* to surgeons I am often asked how they can prove what in fact took place between surgeon and patient so as to answer any subsequent criticisms. Paragraph 4.10 addresses this (and echoes what I have advised):

'In addition to completing the consent form, surgeons should maintain a written decision-making record that contains a contemporaneous documentation of the key points of the consent discussion (see Section 4.1 for the information that needs to be provided) ®C and the patient's decision, even if the patient decided not to undergo a procedure or have any treatment. This could be in the form of a letter to the patient and their GP/referring doctor. The record should also contain documentation of any discussion around consent with the patient's supporters and with colleagues. Any written information given to the patient should also be recorded and copies should be included in the patient's notes.'

Excellent advice. I would add only the following suggestion: consider noting in addition how long the process with the patient actually took, to counter any suggestion subsequently from the patient that it was rushed or superficial.

Surgeons must ensure that the necessary records and documentary trail have been developed to produce such a 'decision-making record' as accurately and comprehensively as possible in the minimum of time.

References

[1] Montgomery v Lanarkshire Health Board [2015] UKSC 11

[2] https://www.rcseng.ac.uk/library-and-publications/college-publications/docs/consent-good-practice-guide/

[3] http://www.gmc-uk.org/guidance/ethical_guidance/consent_guidance_contents.asp

A NOTE FROM THE PRESIDENT OF THE BTS

Professor D M Manas
President of the British Transplantation Society

Over the last few years the BTS has become more inclusive as a society, in a endeavour to represent the community of transplant professionals. Not only by organ type have we become more inclusive, but by speciality as well.

I think we recognised that within our clinical practice we are becoming much more MDT focussed and that all sub-specialities have something to offer to the management of a transplant patient.

With the new BTS strategy of education, training and multi-disciplinary working now well underway, we felt that the BTS annual conference to be held in Harrogate in March 2017 should reflect this change.

We will have a new look education day and a focus on MDT discussions as well as assessment of risk from both the medical and the surgical decision making. In addition, the BTS are engaging in an outreach program to support the third world centres – particularly in renal transplant, and we are establishing a charity called the BTS Foundation, to support research and education for both British and third world students.

Finally, those of you in the vicinity of the RCS, don't miss the exhibition entitled *Transplant and Life* which is a ground-breaking programme of events and commissioned artworks that explore organ transplantation and engage with issues of patient care to enrich health education. We as the BTS are endorsing this thorough the BTS Councillor/ASGBI Director of Communications and Informatics, Professor Vassilios Papalois as part of the steering committee. We hope to see you there on the BTS sponsored day.

REPORT ON THE RCSENGLAND-ASGBI MEETING: 'SURGEONS IN DIFFICULTY, PATIENTS IN DIFFICULTY'

Miss Frances Mosley
ASGBI Affiliate Representative, Yorkshire and Humber Higher Surgical Trainee

Yorkshire trainees feeling the benefits: A report from the recent 1 day conference in Leeds

On the 25th November RCSEng and Yorkshire & Humber Professional Affairs Board (PAB) in collaboration with the ASGBI co-hosted a one day conference, titled 'Surgeons in Difficulty, Patients in Difficulty'. The day held in Leeds, which was free to delegates, was well attended by consultants, trainees and associate specialists from across the region. Many trainees were assisted in attending by the day being placed on the deanery calendar of mandatory teaching days; negating the need for study leave applications.

The theme for the day was Emergency General Surgery; many of the sessions focusing on potential ways to optimise care and minimise risk to patients and consequently the surgeon. We heard from John Abercrombie about the Chole-Quic pilot, a RCS project aiming to improve the rate of acute cholecystectomy in the UK. A highlight for the trainees was the presentation by Ian Eardley on the Improving Surgical Training (IST) project with was followed by some poignant but grilling questions from the trainees in the room.

With increasing financial pressures on trusts and deaneries, regional days such as these offer many of the benefits of a conference style educational day without the travel and accommodation expenses. As a trainee, days like this give us a chance to hear about some of the likely changes we will see within general surgery in the early years of our careers; for the RCS and ASGBI I think hosting regional events such as this will improve the equity of access, ensuring as many members as possible can benefit. We're certainly hoping for more days like this up t'North!

REPORT ON THE 160TH MEETING OF THE EAST MIDLANDS SURGICAL SOCIETY

Friday 4 November 2016, Nottingham City Hospital

Mr Mukul G Dube
Honorary Secretary of the East Midlands Surgical Society

I am grateful to Mr Simon Parsons and Mr Ravi Vorah Consultant Upper GI Surgeons at Nottingham University Hospitals for organising this meeting, and to Allergan Ltd and Medtronic for their sponsorship.

Morning Presentations:
There were a total of 17 papers that were presented at the meeting. The papers were all generally well received, with good discussions.

Following this, Mr Matt Lee from Sheffield Teaching Hospitals gave an overview of the proposed National Audit of Small Bowel Obstruction. He made a plea for all the centres around the region to register for participation in the multi-centre study. After a brief word from the sponsors, the meeting adjourned for lunch.

Afternoon presentations:
We had excellent presentations as follows:

- Dr Sian Dobbs, the student elective bursary winner in 2016, gave a talk entitled "Plastic surgery in developing countries ®C a Ugandan elective experience". She visited a charitable hospital in Uganda which is run by a Plastic Surgeon and colleagues. She described some

unique experiences in the field of cleft lip and palate surgery and repair of post-burn contractures and keloids. She also gave an overview of life in Uganda and highlighted the lack of resources in government hospitals. She initiated a research project looking at the experience of free fibular flaps in reconstruction.

- Professor Michael Gough, National Head of Surgical Workforce Reconfiguration spoke on "Improving Surgical Training". He gave an overview of the direction in which surgical training and workforce planning was heading. He described the importance of simulation and of cadaveric labs in delivering surgical training. He outlined the proposed plans for increasing availability of training opportunities in daylight hours such as modifications in the rota and introduction of modular training.
- Mr Ravi Vohra spoke briefly, exhorting surgeons from around the region, particularly trainees, to actively participate in research activities, and to support research collaboratives. He outlined the benefits of such activities.
- Mr Simon Parsons told us about new developments and trials that had changed practice in the management of oesophago-gastric cancer. This was of considerable educational value to those of us who do not routinely undertake upper GI cancer surgery.
- Mr K Badrinath, Consultant Colorectal Surgeon at Sherwood Forest Hospitals described the developments that had changed practice in the treatment of rectal cancer over the years.
- Miss Ling Ong, Senior HPB Surgical Trainee from University Hospitals of Leicester, talked about "HPB surgery in the elderly". She presented an algorithm which would help to make a rational decision regarding surgical treatment in elderly patients for HPB conditions. She described measures that could be taken to ensure the best outcomes for these patients.

The meeting was awarded 5 CPD points by the ASGBI.

I am grateful to Mr Neil Welch and the ASGBI for sponsoring the prize for the best paper presented in the morning session. This was won by Mr Josh Purves from Sheffield Teaching Hospitals for his paper entitled, "3-dimensional MRI visualisation of fistula-in-ano", and presented by Mr Welch on behalf of the ASGBI.

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FRAILTY AND ITS IMPACT ON POST-OPERATIVE OUTCOMES

Kerri Cooper[1] **& David Shipway**[2]
[1]Foundation Trainee & [2]Consultant Physician & Perioperative Geriatrician

St Mary's Hospital, London, UK. Imperial College Healthcare NHS Trust.

Introduction

Ageing is highly variable process which displays considerable heterogeneity between individuals. Ultimately, what we really assess in the pre-operative patient is not so much their actual age, but their frailty, which can be considered a feature of their *biological*, rather than *chronological*, age. Yet this traditional *end-of-the-bed* assessment is hugely subjective and dependent on the eye of the beholder. Although there tends to be general consensus at the ends of the frailty spectrum, there is a considerable middle ground where determining the presence or absence of frailty is not so easy. In recent years, frailty has been defined and modelled. Modern frailty indices and scales allow clinicians to capture the severity of the ageing process with a score, and in doing so approximate the physiological age and risk profile of their patients.

In this article we overview frailty and its relevance to surgical practice. We discuss current tools available for assessing frailty and practical applications of these tools for risk stratification and optimisation.

Conceptualising Frailty

With advancing age multiple parameters of organ function decline, resulting in a reduction in physiological reserve in each organ. This reduction in reserve renders each organ more vulnerable to insults precipitating organ failure.

Frailty can be conceptualised as a *syndrome of decreased physiological reserve across multiple organ systems.*

The loss of physiological reserve across a range of organ systems results in increased vulnerability to decompensation of complex physiological processes. Though dysfunction of certain organs is easy to conceptualise and detect (eg cardiac), others are commonly overlooked. Delirium, falls, immobility and incontinence are typical presenting features in the older patient of a state of physiological decompensation. Though these presentations are typically considered to be the domain of geriatric medicine, they are common post-operative findings and barriers to recovery and timely discharge.

Frailty in Surgical Populations

Frailty becomes increasingly prevalent with advancing age. Degenerative and neoplastic pathology indicating surgery predispose to frailty, and therefore amongst older surgical patients, frailty is present in about 40-50%, though this varies depending on subspecialty and acuity (reviewed in Partridge 2012).

Frailty is important in the surgical setting because it is closely correlated with surgical outcomes. In a retrospective study of over 200,000 surgical patients (Mosquera 2016) frailty was shown to have a significant impact on 30 day mortality across a range of surgical specialties. Frailty has also been shown to improve the sensitivity of three different surgical risk prediction indexes, including ASA score.

In view of the ageing population and specific increases in the oldest old, it is clear that frailty is an increasing problem and one to which we need to find a solution.

Frailty Defined

The first step in determining and optimising the elderly surgical patient is to identify frailty. Frailty in the research setting has been determined according to two models.

The first of these is the *frailty phenotype*. This model (Fried 2001) was derived from a large scale epidemiological study, which found that when three of the following five criteria were present, risk of death and adverse outcomes was increased in community dwelling elderly:

- Unintentional weight loss (10 lbs in past year)
- Self-reported exhaustion
- Weakness (grip strength)
- Slow walking speed,
- Low physical activity

This model has the advantage of simplicity. However, criticism has been levelled because it excludes certain features that intuitively we consider to be part of the frailty syndrome (eg the presence of dementia, which is the ultimate paradigm of the frail brain). Furthermore, the frailty phenotype is non-specific: for example, a fit young person may find themselves phenotypically frail if they were to receive a physical injury rendering them immobile, inactive and with weak grip strength. They would not however display the *essence* of frailty that we capture at the end of the bed, and which we know represents true risk of adverse perioperative outcome.

In response to this criticism an alternative model has emerged: the *Deficit Accumulation* model. This model calculates a frailty index graded 0 ®C 1 based on how many deficits a patient has accumulated from a list of potential variables. Those patients generating a frailty index of >0.25 were found to be at increased risk of mortality and adverse outcomes, and therefore diagnosed as frail.

Measuring Frailty in Practice

Though the deficit accumulation model has the advantage of grading the severity of frailty, its comprehensive list of deficits (originally 92 variables) makes it poorly suited to the clinical setting. Various more clinically-applicable methods of assessing frailty have been derived from the two research models. These include single surrogate markers (e.g. grip strength; gait speed) disease specific frailty scores; alternative indices and the use of biomarkers (e.g. IL-1 IL-6, CRP, TNF-?). Despite this plethora of frailty tools, many have not been robustly evaluated in the clinical setting and some lack clinical feasibility.

The existing evidence base is therefore insufficient to specifically recommend a single tool for frailty evaluation. In our pre-operative clinical practice we find the *Edmonton Frail Scale (EFS)* most suited to our clinical practice. This tool assesses frailty across the domains of comprehensive geriatric assessment (table 1), and was originally derived from key components of the deficit accumulation model of frailty. It provides a score ranging from 0-17. It is validated for use by a trained lay assistant and takes 5 minutes to complete. It therefore can feasibly be incorporated into a clinical setting. Importantly, the EFS correlates with surgical outcomes in a mixed surgical population and thus has direct application to the preoperative setting (Dasgupta et al 2009).

Advantages of Measuring Frailty

Though the debate on which tool to use in the preoperative setting continues, diagnosis and measurement of frailty before surgery is useful. Data from the 2015 UK Bowel Cancer Audit imply age is used as primary determinant of decision-to-operate, with only 37% of over 85s undergoing major resection compared to over 70% of under-65s. Equitable access to cancer treatment is a priority for the NHS: a more targeted selection process, based on frailty rather than chronological age is likely to identify not only the high risk patient, but also the older low risk patient who should be offered definitive treatment.

Identification of frailty captures the *je ne sais pas quoi* of clinical experience that is missed by conventional risk prediction tools such as P-POSSUM. It therefore allows, measured, frank discussion with patients and family about the risks of functional decline and institutionalisation following surgery. This information allows management of expectations and early discharge planning.

Optimisation of Frailty

Although frailty is a powerful risk prediction tool, it should also serve as a target for treatment. The natural history of frailty is not purely progressive, and longitudinal studies have illustrated that in up to 25%, frail persons spontaneously became less frail over extended follow up (Gill 2006). The inference from such a finding would be that targeted interventions to reduce frailty may improve surgical outcomes in higher risk patients.

The literature exploring frailty interventions is currently limited but early results are encouraging. Broadly speaking, interventions can be categorised into the following domains:

- Pharmacological
- Nutrition
- Exercise & "*Prehabilitation*"
- Comprehensive Geriatric Assessment and Multicomponent Intervention

Pharmacological:
Though the process of ageing is not well understood, frailty is considered to be a manifestation of dysregulated and aberrant ageing. Investigation into the aetiology of frailty has revealed a wide range of inflammatory and endocrine associations. Whether the pathophysiology of frailty is due to a pro-inflammatory catabolic state, or dysregulation of endocrine function remains uncertain. Various therapeutic interventions aiming to correct the aberrant parameters have been studied. Though some success has been seen in the reversal of individual isolated parameters of frailty (eg grip strength), overall tolerability of these agents (eg testosterone supplementation) has been a cause for concern. Full review is beyond the scope of this article. In summary though, there are currently no recommended pharmacological interventions for frailty, though further evidence may emerge in the future as our understanding of the underlying processes progress.

Nutritional Supplementation:
Cachexia and impaired nutritional state are cardinal features of frailty. Optimisation of nutritional status has therefore been an obvious target for frailty interventions. Interpretation of the literature is challenging because of the diverse range of dietary interventions which have been studied, and the plethora of end points used. Much of the literature targets sarcopaenia rather than frailty itself, and it is therefore no surprise that surrogate markers of frailty (including gait speed, *Timed Up and Go* (TUAG) and grip strength) tend to be used as outcome measures, rather than frailty criteria themselves. Protein and calorie supplementation can successfully treat sarcopaenia (Malarfina 2013) and improve mortality in community dwelling older adults. Robust data exist to support nutritional supplementation as means of improving grip strength, weight gain and muscle mass. By extrapolation, this may have an effect on the frailty syndrome.

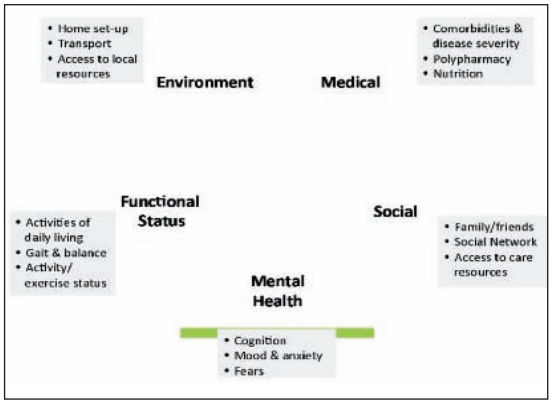
Vitamin D:
Similarly, low vitamin D levels are associated with muscle weakness, falls, fatigue and adverse mortality in older persons. Vitamin D supplementation has been shown to reduce falls, fractures and mortality. New evidence has linked low Vitamin D status to adverse surgical outcomes. Evidence exists indicating that vitamin D supplementation may reduce fatigue in cancer patients and improve rehabilitation. As evidence emerges, Vitamin D screening and correction in the preoperative setting may have a future role (Morely 2013).

Exercise & Prehabilitation:
Gait speed as a single parameter is closely correlated to outcomes for the frail index and phenotype as a whole. It is well-established that exercise can increase spontaneous gait speed, and in doing so reduce overall frailty. Exercise programmes have an extensive evidence base in the geriatric medicine literature, and in community dwelling older adults have been shown to increase functional performance, gait speed, standing from a sitting position and balance. They also appear to be associated with a reduction in falls and depression. Exercise programmes have been shown to delay the onset and progression of frailty (Theou 2011) and improve mortality in the context of cardiac and lung disease.

Parameters of cardio-respiratory fitness have long been known to predict surgical complications and mortality. A recent systematic review of the exercise training literature evaluated the evidence for preoperative aerobic exercise training in elective intra-cavity surgery (O'Doherty 2013). This review

concluded that preoperative exercise training was safe, feasible, and that VO_{2Max} and anaerobic threshold could be anticipated. Though clinical endpoints have not been evaluated to the same degree, limited evidence suggests a reduction in complications and critical care use. Further trials are needed to specifically address the effect of prehabilitation on operative outcomes and define optimal type, duration and setting of exercise.

Comprehensive Geriatric Assessment:
Frailty is a complex clinical entity. Intuitively it seems unlikely that a single solution will be found to reverse the syndrome and improve clinical outcomes. Complex interventions addressing the multiple contributory factors are more likely to yield meaningful results. Comprehensive Geriatric Assessment (CGA) in the older *medical* patient is well-established as the existing gold-standard for the frail older patient. CGA incorporates assessment and optimisation of medical comorbidity, medication, nutrition, functional capability, social support, psychological and cognitive state, and review of the geriatric syndromes.



Components of Comprehensive Geriatric Assessment

Evidence indicates CGA prevents adverse geriatric outcomes. Furthermore, targeted multifactorial intervention using CGA has been shown to reduce frailty itself at 3 months (Cameron 2013).

Randomised trials evaluating this approach in the surgical setting have not yet been conducted. A model of comprehensive, targeted pre-operative and post-operative care of the elderly surgical patient does however exist. Though frailty itself as an endpoint has not been evaluated, data support the use of CGA-derived models of care for frail older surgical patients (Braude 2016, Harari 2007). These studies indicate that complications and length of stay in older surgical patients can be reduced by this approach, without resulting in increased readmission.

Conclusion:
The burden of frailty on surgical specialties is increasing and known to correlate strongly with surgical outcomes. Recognition of frailty in the preoperative setting allows better risk stratification and informed consent in a complex patient group. Though research in this area is in its infancy, early indications support the use of multimodal interventions based on comprehensive geriatric assessment. This process of care requires not only preoperative medical optimisation, but continued intervention throughout the patient pathway. Closer perioperative collaboration between surgeons and geriatricians is likely to be needed in the future to achieve this.

References:
Cameron, I.D., Fairhall, N., Langron, C., Lockwood, K., Monaghan, N., Aggar, C., Sherrington, C., Lord, S.R. and Kurrle, S.E., 2013. A multifactorial interdisciplinary intervention reduces frailty in older people: randomized trial. *BMC medicine*, *11*(1), p.1.

Braude, P., Goodman, A., Elias, T., BabicÅ]Illman, G., Challacombe, B., Harari, D. and Dhesi, J.K., 2016. Evaluation and establishment of a wardÅ]based geriatric liaison service for older urological surgical patients: Proactive care of Older People undergoing Surgery (POPS)Å]Urology. *BJU international*.

Fit for Frailty - consensus best practice guidance for the care of older people living in community and outpatient settings - a report from the *British Geriatrics Society* 2014

Fried, L.P., Tangen, C.M., Walston, J., Newman, A.B., Hirsch, C., Gottdiener, J., Seeman, T., Tracy, R., Kop, W.J., Burke, G. and McBurnie, M.A., 2001. Frailty in older adults evidence for a phenotype. *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences*, *56*(3), pp.M146-M157.

Gill, T.M., Gahbauer, E.A., Allore, H.G. and Han, L., 2006. Transitions between frailty states among community-living older persons. *Archives of internal medicine*, *166*(4), pp.418-423.

National Bowel Cancer Audit Report 2015 ®C a report from the Healthcare Quality Improvement Partnership Ltd.

Makary, M.A., Segev, D.L., Pronovost, P.J., Syin, D., Bandeen-Roche, K., Patel, P., Takenaga, R., Devgan, L., Holzmueller, C.G., Tian, J. and Fried, L.P., 2010. Frailty as a predictor of surgical outcomes in older patients. *Journal of the American College of Surgeons*, *210*(6), pp.901-908.

Malafarina, V., Uriz-Otano, F., Iniesta, R. and Gil-Guerrero, L., 2013. Effectiveness of nutritional supplementation on muscle mass in treatment of sarcopenia in old age: a systematic review. *Journal of the American Medical Directors Association*, *14*(1), pp.10-17.

Morley, J.E., Vellas, B., van Kan, G.A., Anker, S.D., Bauer, J.M., Bernabei, R., Cesari, M., Chumlea, W.C., Doehner, W., Evans, J. and Fried, L.P., 2013. Frailty consensus: a call to action. *Journal of the American Medical Directors Association*, *14*(6), pp.392-397.

Mosquera, C., Spaniolas, K. and Fitzgerald, T.L., 2016. Impact of frailty on surgical outcomes: The right patient for the right procedure. *Surgery*.

O'Doherty, A.F., West, M., Jack, S. and Grocott, M.P.W., 2013. Preoperative aerobic exercise training in elective intra-cavity surgery: a systematic review. *British Journal of Anaesthesia*, *110*(5), pp.679-689.

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coress Feedback

This series of cases illustrates potential for errors and adverse events, in cases in which patient care is pooled. This situation is increasingly likely to occur in large Units where care is centralised. Communication is key, and responsibility for the patient's care by individual clinicians must not be avoided or ignored. Situations in which errors have occurred should be carefully analysed so that the systems allowing these can be changed to reduce risk.

We are grateful to those who have provided the material for these reports. The on-line reporting form is on our website **www.coress.org.uk** which also includes previous ***Feedback Reports***. Published cases will be acknowledged by a "**Certificate of Contribution**", which may be included in the contributor's record of continuing professional development.

RETAINED WOUND PROTECTOR

(Ref: 218)

A self-retaining wound protector was used to hold a wound open during a colorectal operation. The surgeon made the incision slightly bigger and put his hand through the protector to perform a hand-assisted anastomosis. When the patient became unwell a few days later it was found that the wound protector had been retained in the abdomen. A second operation was required to remove it.

Reporters Comments:

Wound protectors and other surgical items such as ports and gallbladder retrieval bags are often not included in the surgical count. When an incision is enlarged, the wound protector should be changed for a larger size. It is assumed that the protector slipped into the wound when the incision was enlarged, and was retained under the abdominal wall when the surgeon removed his hand.

All disposables should be included in the count. Just because it is assumed that it would not be possible for something to be retained does not mean it could not happen.

CORESS Comments:

All disposable items used in the operative field should be counted in, and out. Always check that the equipment being removed from the wound is intact, and that components have not been left in situ.

TOO MANY GUNS...

(Ref: 217)

During a reversal of Hartmann's Procedure, the rectum and sigmoid colon were found to be very narrow. Intra-operatively, both 25mm and 29mm circular stapler guns were opened and checked to see where they would reach in the rectal stump. Further dissection allowed a 29mm gun (the preferred option) to reach near enough to the stump. A 29mm anvil was placed in the descending colon and an attempt to achieve an anastomosis was undertaken. The gun was placed rectally, the spike extended through the rectal stump and docked with the anvil. The gun tightened as expected, but didn't fire correctly. It then became apparent that the 25 mm gun had been used in the attempt to connect to the 29mm anvil. A further attempt with the correct gun was successful.

Reporters Comments:
A size mismatch between staple gun and anvil occurred when the wrong gun was used in error. The design of the gun for this device allows a size mismatch to occur - beware! Ideally only one size of staple gun should be open and available at the operating table at any one time. A visual and verbal check should be undertaken to ensure matching components before the staple gun is fired to form an anastomosis.

CORESS Comments:
This report suggests a system error in which it was possible to unite two mismatched components. CORESS would like to learn if this situation has also happened to you? If a common occurrence, representation will be made through MHRA to alter the manufacturing process. Colour coding of device components for individual sizes is used for some devices, although even this may not prevent similar occurrences. As per the reporter's comments, only one gun and its specific components should be available in the operative field.

NO NOTES – INCORRECT PROCEDURE

(Ref: 59)

A patient with whom I had been involved for some years was brought to theatre for closure of a colostomy. She was accompanied by a set of temporary notes, which did not include records of previous surgery. She had been admitted on the day of surgery and consented by the SpR who had not previously seen her, and who accepted her account of the procedure to be undertaken. I realised that the notes were not present when I checked before the anaesthetic and requested them. I had to decide whether to proceed with the operation or send the patient back to the ward.

In the end we undertook surgery and I closed what I had remembered was a loop colostomy by simple closure of the defect. I was very uneasy about this and told the nursing staff not to send the patient back to the ward until the notes had arrived and I had seen them. Eventually, clinic letters were retrieved and printed off by the secretary. On review it was clear that I had closed an end-colostomy. The patient was immediately re-anaesthetised and I undertook the previously planned bowel re-anastomosis.

Postoperatively I explained what had happened to the patient, who fortunately was very understanding.

Reporters Comments:
Never undertake a procedure based on memory alone without review of

the relevant clinical records and investigations. Don't succumb to the temptation to cut corners because of work pressures.

CORESS Comments:
This situation should never have been allowed to happen. All relevant information must be reviewed prior to undertaking any procedure. When an operation is being undertaken as a direct consequence of previous surgery, the previous operation records should be reviewed to aid planning of the current proposed intervention. Colorectal surgeons on the Advisory Board emphasised the role of endoscopy if unsure of the anatomy of a stoma.

MINI-TRACHEOSTOMY COMPLICATIONS

(Ref: 221)

An elderly female patient had an uneventful right upper lobectomy for lung cancer. 5-days post operatively she began to develop respiratory failure, secondary to retained secretions which she was unable to expectorate. It was decided to insert a mini-tracheostomy tube under local anaesthetic to facilitate pulmonary toilet. The patient was in the intensive care unit (un-intubated) and an anaesthetist administered Midazolam sedation. During the insertion procedure the guidewire became misplaced outside the airway and on insertion of the mini-tracheotomy tube and dilator, a significant injury to a thyroid artery occurred. When the dilator was withdrawn there was massive haemorrhage up the mini-tracheotomy tube, which could not be controlled. The patient lost in excess of 1700ml of blood extremely rapidly and although she was transferred immediately to an operating theatre where local control was achieved by emergency sternotomy, resuscitation was unsuccessful.

Reporters Comments:
Poor technique was involved. The guide wire was not in the trachea before dilation began. The procedure was not undertaken in or near an operating theatre in case of haemorrhage, although this complication, thankfully, is rare.

National guidelines on indications for mini-tracheostomy usage and insertion are lacking. As a consequence of this incident it is now our practice to introduce mini-tracheotomy tubes only in an anaesthetic room or an operating theatre. The procedure is performed under general anaesthesia and commences with a rigid bronchoscopy for bronchial toilet. The rigid bronchoscope is then withdrawn to just below the level of the cords and the mini-tracheotomy tube is introduced into the airway with direct visualisation through the rigid bronchoscope to ensure correct placement of the tube.

CORESS Comments:
Mini-tracheostomy should be undertaken in a well-lit operating theatre or anaesthetic room, with facilities and available personnel with expertise to intubate at hand. In many cases general anaesthesia may not be initially feasible, (sedation is usually contraindicated), and the procedure can be carried out under local anaesthesia by experienced staff. A key step in the procedure is to ensure that the Tuohy needle is in the trachea, with free aspiration of air, PRIOR to insertion of the guidewire.

If the patient is severely hypoxic and non-cooperative it may be a wise alternative to intubate, ventilate and opt for early tracheostomy.

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(As at Winter 2016)

The Association welcomes and encourages contributions from Fellows, and asks that potential contributors take the following guidelines into consideration.

Aims

The ***Journal of the Association of Surgeons of Great Britain and Ireland (JASGBI)*** is a regular publication which has evolved from the previously named ***Newsletter***. It aims to publish material of topical or general interest to members of the Association, which will promote and advance the reputation and functions of the Association to a wider professional audience.

JASGBI is not a peer reviewed, academic publication and is not intended as a vehicle for conventional academic papers. We nevertheless welcome a wide range of subject matter which may include:

- Articles of national and strategic relevance in relation to surgical training, teaching, career development, and issues in national politics, as they bear upon surgical and professional practice.
- Articles of topical debate.
- News from the Regions, and from affiliated Speciality Associations and Societies.
- Articles on international surgical practice, as observed by members of the Association on their travels, attachments and secondments.
- Historical articles of interest and relevance to surgeons.
- Personal experiences, parallel careers, hobbies, activities and achievements which are out of the ordinary, or which would fit our popular '**Secret Lives**' series.

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Please submit articles in **point size 12, Calibri font**. Each page of ***JASGBI*** can accommodate around 750 words with a small picture. While we are flexible as to content, articles should usually be of 2,000 words or less, with up to four original images and/or figures. In general terms, PowerPoint graphics detract from the quality of presentation and should be avoided.

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