

Openly accessed and openly published: a celebration of international high-impact surgical research

BJS Open was launched in February 2017 in response to increased demand for an open-access platform for high-quality surgical research. As many funders of research across the globe were mandating publication in open-access journals, *BJS Open* was formed with the aim of providing a high-quality journal for the scientific surgical community, including clinicians, authors and readers.

Since conception, *BJS* and *BJS Open* have worked in close collaboration providing many authors with the opportunity to transfer their papers after favourable peer review, thus accelerating the publication process.

During the first 4 years, *BJS Open* has published nearly 500 articles, and the Editorial Team is delighted to announce a first impact factor of 3.396. Whilst recognizing the limitations of this metric it still gives cause for celebration and reflection on what has been achieved in a relatively short time frame.

We are immensely grateful to the tireless efforts of our numerous reviewers and members of the Editorial Board, who have scrutinized manuscripts and improved the quality of submissions. However, it is the content of each issue that is the hallmark of the journal's quality and some notable contributions to the first successful impact factor are highlighted here.

A multinational research group studied stress and surgical performance in surgeons at Stanford Hospital (California, USA)¹. They demonstrated a direct relationship between acute mental stress and events that caused injury or risk of harm. The findings have multiple implications that hopefully lead to safer surgery, and less stress among surgeons.

The need to reduce postoperative complications is clearly demonstrated in a population-based study from Sweden analysing the effect of anastomotic leak on postoperative mortality². Anastomotic leak necessitating a re-intervention was associated with a greater than five-fold increase in 90-day mortality, further demonstrating that anastomotic leak is still a major issue in colorectal surgery.

Notwithstanding the importance of short-term morbidity and mortality, long-term outcomes are of paramount interest, especially in cancer surgery. A team of surgeon scientists from Fukuoka, Japan, reported that the prognosis of patients undergoing liver resection for hepatocellular carcinoma (HCC) can be assessed using simple blood markers: lymphocytes and monocytes³. Evaluation of the prognosis of HCC is of particular interest as the spectrum of treatment options is highly diverse, ranging from local endovascular treatment to liver transplantation.

Vascular surgery has taken huge strides in the development of minimally invasive techniques over the past 10 years. Endovascular aneurysm repair (EVAR) has become a standard for infrarenal abdominal aortic aneurysm (AAA) with lower complication rates compared with open surgery, but fenestrated EVARs

(FEVAR) for juxta-renal AAAs are less studied. A research group from Leeds, UK, included 27 studies in their meta-analysis, and concluded that FEVAR was associated with lower morbidity, but not lower mortality, compared with open surgery⁴. FEVARs required over five times more re-interventions in the long-term. This reinforces the importance of monitoring new surgical innovations and comparing with gold standard treatments.

Whilst the best evidence unarguably comes from RCTs, these can be challenging to perform in surgical practice, which can mean relying on registry data. Many countries already have established nationwide surgical registries, most notably Sweden and the Netherlands. In evaluating registries it is crucial to assess the reliability and validity of the data. The Dutch Institute for Clinical Auditing (DICA) published a validation study demonstrating excellent results with 97–99 per cent data completeness with 88–100 per cent accuracy⁵.

This small sample of excellent submissions to *BJS Open* highlights the geographical diversity of researchers who have contributed to the success of the journal. We will continue to serve both our authors and readers by providing an open-access platform for high-quality surgical research dissemination throughout the world.

Ville Sallinen, *Editor-in-Chief*

Katy Darvall, *Editor*

Laura Lorenzon, *Editor*

Frank McDermott, *Associate Editor*

Giovanni Marchegiani, *Associate Editor*

References

1. Grantcharov PD, Boillat T, Elkabany S, Wac K, Rivas H. Acute mental stress and surgical performance. *BJS Open* 2019;**3**:119–125.
2. Boström P, Haapamäki MM, Rutegård J, Matthiessen P, Rutegård M. Population-based cohort study of the impact on postoperative mortality of anastomotic leakage after anterior resection for rectal cancer. *BJS Open* 2019;**3**:106–111.
3. Itoh S, Yugawa K, Shimokawa M, Yoshiya S, Mano Y, Takeishi K *et al*. Prognostic significance of inflammatory biomarkers in hepatocellular carcinoma following hepatic resection. *BJS Open* 2019;**3**:500–508.
4. Jones AD, Waduud MA, Walker P, Stocken D, Bailey MA, Scott DJA. Meta-analysis of fenestrated endovascular aneurysm repair versus open surgical repair of juxtarenal abdominal aortic aneurysms over the last 10 years. *BJS Open* 2019;**3**:572–584.
5. van der Werf LR, Voeten SC, van Loe CMM, Karthaus EG, Wouters MWJM, Prins HA. Data verification of nationwide clinical quality registries. *BJS Open* 2019;**3**:857–864.