Introduction
LOCH (Lessons in Open Access Compliance for Higher Education) is a Jisc-funded pathfinder project which aims to research and share best practice in the implementation of open access in the UK Higher Education Sector. LOCH is led by the University of Edinburgh in co-operation with partners at Heriot-Watt University and St. Andrews University, which are all research-intensive universities based in Southeast Scotland (1).
The University of Edinburgh is undertaking a programme to facilitate the widespread adoption of open access (OA) to journal articles and conference proceedings across the entire University, in line with current UK higher education funding council policy. This case study details the approach taken by the University’s College of Medicine & Veterinary Medicine.

Open access & research assessment in the UK
The Research Excellence Framework (REF) (2) is the UK’s system for assessing the quality of research undertaken in UK higher education institutions. REF exercises are undertaken every seven or eight years, and the results of these exercises have a direct impact on an institution’s research funding over the coming period. Since April 2016, journal articles and conference proceedings must be deposited in an institutional or subject repository within three months of the date of acceptance and made open access, in order to be eligible for submission to the next Research Evaluation Framework in the United Kingdom. This paper describes the programme to facilitate this at the University of Edinburgh’s College of Medicine and Veterinary Medicine.

College of Medicine & Veterinary Medicine
The University’s College of Medicine & Veterinary Medicine (hereafter referred to as the College) is a research-intensive organisation and one of the world’s leading centres for medical and veterinary research. The power of College’s biomedical and veterinary research was reaffirmed by the College’s 2014 REF results where 84% of its research activity was rated internationally excellent or world leading (3* and 4*) (4). Medicine, the
University of Edinburgh’s largest REF submission and one of the largest in the UK, achieved excellent results and retained its position as a UK top five Medical School, as defined by research power. Veterinary and agricultural research at Edinburgh in partnership with Scotland’s Rural College (SRUC) has been ranked as most powerful in the UK. The collaborative nature of the College structure means that administrative boundaries between disciplines do not play a huge role in College’s life. To reflect this, the College has undergone a process of restructure that brought together the three medical schools (Biomedical Sciences, Clinical Sciences and Molecular, Genetic and Population Health Sciences) into a single Edinburgh Medical School. The new Medical School is significantly larger than other schools in the University and it is divided into three Deaneries. Veterinary teaching and research is performed at the Veterinary School which incorporates the Roslin Institute. The aim of the restructure has been to strengthen the existing working relationships between diverse areas of research and teaching, and to provide a platform suited to the extensive collaboration across research themes. Traditionally, College academics identify more with their research centres and institutes, rather than schools. At present, there are six Research Institutes which bring together 16 interdisciplinary Research Centres. In addition to this, there is also a Division of Health Sciences which comprises eight sub-units.

**Planning**

The guiding principle of the REF OA policy is that journal articles and conference proceedings with ISSN must be openly available in order to be eligible for submission to the next REF. This must be achieved by depositing a copy of the Author's Accepted Manuscript (AAM) into an institutional or subject repository within three months of acceptance and made open access as soon as possible after that. This is a massive challenge and, like many other UK HEIs, Edinburgh started the implementation process as early as possible to allow time to introduce the practical measures to facilitate and advocate for OA and to monitor compliance in advance of the official REF policy start date. In doing so, the College has employed a project-based approach which takes some of the component parts of project management, for example developing a responsibility matrix. The University’s institutional repository and CRIS, (Elsevier’s PURE system), is be used in favour of subject repositories as this allows for easier monitoring and mediated input. Because PURE is intended to be used for the REF2020 submission, the duplication of effort can be avoided. The implementation project deliverables are:

- compliance with REF OA Policy – ensuring that research papers are eligible for the next REF;
- increased compliance with research funders’ mandates, especially MRC, BBSRC and Wellcome Trust;
- increased proportion of published research outputs that are available open access;
- increased awareness of OA and its benefits.

The REF OA policy places a responsibility on authors to deposit their work and comply with the policy requirements. The College’s expectation is that academics will, in any cases, continue using their disciplinary knowledge to select the most effective channels for their research. Researchers are of course free to choose where to publish, how much to publish, and how often to publish. However, it is important that the academics try to ensure that their chosen publication venue will allow them to comply with the REF OA policy and with their funders’ OA requirements before they submit an output for publication.
Implementation arrangements
In managing the deposit of the author’s accepted manuscripts into PURE a locally mediated approach seems to be the most popular approach with the Medical School (Figure 1).

With this approach, the author forwards the final accepted manuscript to a designated administrator as soon as possible after being notified of acceptance by a publisher. The administrator creates a metadata record and uploads the document to PURE. On publication, the administrator amends the record with post-publication metadata, applies correct post-publication embargo and validates the record. The correct version becomes OA either immediately on publication or on expiry of any embargo period.

Within the Veterinary School the authors are asked to create the initial metadata entry in PURE and upload their manuscript on acceptance (Figure 2).

A team of local administrators pick up all newly created records and update them on publication. Both approaches are author-centred and have the same goal - to minimise the administrative burden on researchers and to help achieve full compliance with the policy.

As administrators have no means of discovering papers before publication, authors must take responsibility for taking the first steps immediately on being notified of acceptance.

Open access workflow
As mentioned above, at the heart of the College’s implementation arrangements is a local deposit process enabled by a team administrators, PAs and secretaries in each Research Centre/Unit. The local administrative staff are the first points of contact for any deposit-related queries from academics. The fact that these administrators are a part of each Research Centre’s everyday life means that they can be very effective and have access to all academics. They are also au fait with their colleagues’ research and publication activities.

Supporting for administrators and authors
The College’s Open Access Coordinator is employed by the College Research Office but spends two days per week working in the offices of the Scholarly Communications Team, which is based in the University Library. This arrangement has proven mutually beneficial in building relationships between staff in the Library and the College Research Office and has led to streamlined processes for OA support and for managing article-processing charge payments, where these are necessary.

The scale of the work on OA means that many existing administrative staff have now been enlisted to support OA processes in some way, even though they may be entirely new to the world of libraries or publishing. Comprehensive training had to be devised and delivered for all these staff, starting with the fundamentals of academic publishing. Sessions cover OA-related terminology, a detailed overview of the REF OA policy, other funders’ OA policies and the implementation arrangements for the College. In addition, staff are shown how to: create metadata records in PURE, upload fulltext documents, apply correct post-publication...
Large scale implementation of open access

embargoes, update metadata and validate records. A range of resources and reference materials have been circulated amongst the administrators now working to support OA. The Open Access Project Coordinator continues to provide ongoing support to all administrators to ensure that the staff are equipped with skills and capabilities to perform depositing and validating records in PURE.

With the assistance of the Scholarly Communications Team, separate sessions covering details of the REF and other funders OA requirements have been organised for the academic staff from almost all Research Centres. Experience has shown us that sessions for academics about OA work best as a short 10-minute presentation incorporated into a regular departmental meeting. Separate/voluntary outreach sessions about OA tend to have a poor turnout – it is much better to present the requirements to a captive audience and then offer one-to-one follow up sessions as necessary. Experience has shown us that academic staff often do not ask questions in departmental group sessions so it is important to offer a channel for more individual support in addition to group presentations.

Challenges in implementing the REF OA policy

The following issues are affecting the College’s ability to implement the REF OA policy:

• the policy introduces a new point of intervention – the point of acceptance. The research support administrators have no reliable mechanisms of discovering papers prior publication unless the authors advise them of this fact. The College has planned a comprehensive support system around the requirement to deposit on acceptance, but the ultimate responsibility for the timely deposit of manuscripts always lies with the academic author;

• in order to accommodate the policy, changes to existing workflows and processes are required. This means successfully introducing a new routine of timely depositing manuscripts into PURE and/or communicating the fact of acceptance to admin support staff;

• the policy has no scope for retro-active compliance – if academics do not take action on acceptance, there is a real risk the paper may not be eligible for submission to REF;

• author engagement with the policy is not yet as high as it should be. Staff have been notified of the arrangements via all-staff emails and monthly compliance reports are produced for senior management;

• the research-intensive nature of the College results in a significant volume of research papers. Current estimates are that the College produces approximately 2000-2400 potentially REF-able papers each year. The REF policy means that records need to be checked on acceptance and normally once again after publication. Managing all these publications in a timely manner and maintaining high quality metadata is a labour-intensive task. The College relies entirely on the existing staffing levels to deal with all the related processes;

• the policy environment is unnecessarily complex with research funder policies differing amongst themselves and to those of the REF and the University. This causes extra confusion for authors and their support staff;

• the complex organisational structure and geographical layout (over multiple sites across Edinburgh and the Lothians) means that the implementation of the policy presents a big challenge in terms of ensuring that everyone is aware of the requirements.

Conclusions

Whilst the University of Edinburgh has been engaged with the OA agenda for over a decade, the transition towards full OA has undoubtedly been slow. Early university and research funder OA policies often lacked any sanctions for non-compliance, so were seen as “toothless” and could easily be ignored by busy researchers. Associating OA with the high-profile agenda of research assessment has undoubtedly helped to create an increase in awareness of OA, as well as increased deposits in institutional repositories. At the same time, this has created unprecedented volumes of work for library and research support staff working with OA.

It is of critical importance that we continue to convey a really upbeat, positive message about the value of OA to authors during this time of transition.
There is a potential risk that the association of OA with research assessment causes authors to lose sight of the good things that OA can do for them – all this could easily be perceived as another exercise in bureaucracy. At the same time – we have a duty to alert authors to the potentially serious consequences non-compliance with the policy.

Staff in the University Library and the College of Medicine worked extremely hard to prepare for the REF OA requirements ahead of their implementation in April 2016. There is, still, much work to do, and many conversations to be had – but success with this new policy could prove to be a real milestone in the transition towards open access, and the UK could be in a position where a vast majority of journal articles and conference proceedings are available on an open access basis.

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REFERENCES