igniting our potential

Leaving the European Union (EU): Opportunities and Implications

The UK Clinical Research Collaboration has collected the views of its Partners (NHS, research funders, industry, regulatory bodies, Royal Colleges, patient groups and academia) to identify the main opportunities, implications and legislation/regulation that need to be considered in leaving the EU for the clinical research sector in the UK. The information was collated in late 2016 and as the situation is dynamic, the following views may not necessarily be representative of individual organisations, the UK Government or Devolved Nations (Wales, Northern Ireland, England and Scotland).

Opportunities

Regulation

Research Regulations

The UK hosts a disproportionately large share of clinical trials and has a strong small to medium-sized enterprises (SME) sector, both of which could benefit from and be enhanced by different regulation following departure from the EU. Significant elements of clinical research regulation and governance are not determined by our EU membership; for example Health Research Authority approval and the Human Fertilisation and Embryology Authority (HFEA) regulation of stem cell and embryo technologies. The UK must make the most of these opportunities; for example better arrangements for restricted research areas such as stem cell research, Genetically Modified (GM) research and research into vaccines could be achieved on leaving the EU.

Medicines Licensing

New regulation should build on improvements in reliability of clinical trials data since the EU Clinical Trials Directive was introduced, by aiming to get to an evidence base that will satisfy the marketing licence requirements not only of our own medicines regulator, the Medicines Health products Regulation Agency (MHRA), but also of others around the world, such as the US Food and Drug Administration (FDA) and counterparts elsewhere, including in the EU. This could involve mirroring the standards (whether set out in legislation or elsewhere) that these various bodies expect, without necessarily working within exactly the same processes, in order to be acceptable for EU and other countries' licensing purposes.

Devices Regulation

In addition to looking at these opportunities, we consider it vital that the UK works towards a negotiated mutual recognition agreement with respect to the European Medical Device and In-vitro-Diagnostics Device CE Marking processes. Additionally, the UK Competent Authority (MHRA) and UK based Notified Bodies should also, as far as is possible and practical, continues to contribute to the European regulatory debate and development.

A joined up UK regulatory-National Institute for Health and Care Excellence (NICE) offer

To achieve timely patient access in a financially sustainable way, alignment of regulatory and Health Technology Assessment (HTA) processes and timetables is needed together with early discussions between life sciences companies and multiple stakeholders in the healthcare system. NICE and the MHRA have made strong progress in these areas through full alignment of the Early Access to Medicines Scheme and NICE Technology Appraisal timetables, joint scientific advice to the life sciences industry and close collaboration between the MHRA Innovation Office and NICE's Office for Market Access.

For medicines, NICE currently needs to align primarily with the processes and timelines of the European Medicines Agency (EMA), as most new medicines are licensed through the Central European Procedure. On leaving the EU, there is an opportunity to achieve fully aligned regulatory and HTA processes. Combined with UK capability and infrastructure in clinical trials, there is the potential to create an efficient and aligned pathway from basic research to patient access for innovative health technologies, making the UK a very attractive option for life sciences investments.

People

Development of a new immigration system that facilitates international scientific collaboration

An immigration policy that supports the movement of those who contribute to the advancement of science and research would position the UK as a global science hub with both EU and non-EU partners. We recommend the development of a Science Passport, based on the principles of the Research Passport, which could be issued quickly to overseas scientists wishing to work in the UK.

Funding

Partnerships outside the EU

Leaving the EU should have little impact on our partnerships and collaborations with non-EU international partners. We should continue to look actively outside the EU for opportunities to develop relationships with the Australia, Canada, Switzerland and Singapore (ACSS) consortium. We see leaving the EU as an opportunity to further build these relationships, to fund more international research to bring together the best minds, no matter where they are in the world. Our vision is to have strategically-led, effective transnational research partnerships that are not confined to EU members. We should encourage UK researchers to develop international collaborations and enable them to have access to infrastructure and funding that supports these.

Procurement

On leaving the EU the application of restrictive EU procurement legislation would be removed, allowing flexible evaluation rapidly in the context of a healthcare system using a range of different procurement tools. Along with the outcomes from the Accelerated Access Review, new products could be adopted effectively across the NHS.

Clinical Research Data

There are important opportunities to improve the secondary use of data from clinical research. Anonymised patient level data, which is currently rarely available, will contribute to the timely evaluation of medicines and other health technologies. This would support both patients and the life sciences industry through timely adoption of clinically and cost effective technologies. Transforming the way that 'real world' clinical research data is accessed and analysed would contribute significantly to an attractive post-EU landscape for the life sciences industry in the UK.

NHS Research Service

Leaving the EU creates an opportunity to further encourage patient and public support for successfully turning the NHS into an NHS Research Service. In this all parts of the health and care system will be engaged in research, with patients and the public as willing contributors to this enterprise. This will require the common pursuit of such a vision across many agencies spanning the system, supported by appropriate investment.

Challenges

Regulation

Research Regulations

As many clinical trials are cross border studies, it is essential that access to the new EU Clinical Trials portal is secured when it becomes operational in 2018.

Devices Regulation

For devices the current arrangement, whereby a CE mark is granted by a Notified Body (NB) whose actions are audited by the competent authority (i.e. the MHRA for UK NBs) should be preserved. As Turkey (not a member of the EU) does this it would seem a real possibility that this could be accomplished.

Moving away from regulatory harmonisation

As the UK creates its own regulatory framework, there is a risk that duplication and unnecessary burden may deter companies from launching new treatments and devices in the UK and thus delay access to innovative new medicines and devices for patients. This is a significant risk for special populations (rare diseases, children and the elderly) as the larger pan-EU scale makes it cost-effective to gain regulatory approval and distribute new treatments.

People

Decrease in the ease of movement of people between the UK and the EU

Without easy movement between the UK and EU countries, researchers could lose opportunities to train and develop specialist skills abroad. UK researchers could find it harder to access large facilities located in EU countries and vice-versa meaning that the value of shared European scientific infrastructure could be lessened. We need to be able to offer certainty to be able to recruit and retain the best scientific minds. The challenge is to maintain this flow in the context not just of the UK being outside the EU, but also in the shorter term for those who wish to come to the UK. This may require extending visa and immigration priorities and exemptions currently in place for non-EU researchers to EU researchers.

Student Admission Numbers

Leaving the EU is likely to have an impact on student admission numbers. Overseas students are less likely to be attracted to the UK when it is not part of the EU, and EU students will be less attracted to the UK if they are required to pay international fees. This could have a serious impact on university income and a disproportionately large impact on medicine and other Science, Technology, Engineering & Mathematics (STEM) subjects given the high training costs. Great care will be needed with transitional arrangements.

Funding

To strengthen the UK's relationship with non-EU international partners, UK Government must build the prestige and global recognition of its research grants and consider how these may facilitate and promote international collaboration and drive international research consortia. UK Research and Innovation should play a lead role in developing such grants. Any opportunities for further global partnerships should augment, rather than replace, collaborations with EU researchers, and will need appropriate financial support. e.g. the EU Radiation Protection programme, which supports collaborative research by radiation biologists, physicists, chemists and regulators into this specialised area. This combining of

expertise and resources has been mutually beneficial, and no counterpart UK strategeic funding streams exists to fill any gaps in support which may occur.

Innovative Medicines Initiative
This initiative is the EU's flagship public-private partnership scheme that aims to speed up the development of better and safer medicines for patients. These are multi-partner international collaborations often worth over €50M and the UK is the lead beneficiary. For example, Arthritis Research UK, the British Lung Foundation and Asthma UK are partners in one of the 71 Innovative Medicines Initiative projects and Edinburgh and Dundee Universities lead numerous EU Innovative Medicine Initiative programmes in areas such as diabetes, dementia and infections. Every effort must be made to ensure their continuation.

Failure of European Programmes
Some European programmes may fail if the UK is no longer a partner. For example, the European & Developing Countries Clinical Trials Partnership (EDCTP) is dependent on the EC matching contributions from Member States, reducing the likelihood that the target commitments will be met. Also, the UK is in the process of establishing a European Research Infrastructure Consortium (ERIC) to host the structural biology infrastructure, INSTRUCT. On leaving the EU we will not be able to host the ERIC, leading to disruption as a new legal seat was found.

Science Investment
In leaving the EU, it is important that overall levels of investment in UK science and the diversity of funding are protected and grown in the longer term. To encourage and enable UK researchers to further develop international collaborations, they should have access to infrastructure and funding that supports these; the EU Funding Programme 9, for example, which will replace Horizon 2020. It is important to consider the future priorities of such programmes and their continued being awarded based on scientific excellence.

Rare Disease Research

This strongly benefits from coordination on a multinational scale. The EU co-ordinates and/or funds a number of networks that allow for transnational funding of collaborative rare disease projects and reduce fragmentation of research. Examples include:

- The International Rare Diseases Research Consortium (IRDiRC)
- ERA-Net for Research Programmes on Rare Diseases
- European Reference Networks (approximately 40 UK hospitals involved with at least 6 of the 24 Networks being co-ordinated by NHS Trusts)

Expanding the size of the population from which patients can be drawn with a particular condition means that clinical trials for rare diseases can be more easily carried out, helping to promote investigation of treatments for rare conditions. The larger pan-EU scale makes it cost-effective to gain regulatory approval and distribute new treatments for special populations (rare disease, children and the elderly).

Transnational cooperation and collaboration

Transnational collaboration involves agreeing and setting standards; protection against environmental hazards or limiting the spread of infectious diseases. Transnational cooperation in training of scientific and clinical staff to deal with hazards or threats to health, often require very specialized skills. The challenge is maintaining the UK's participation in transnational actions that benefit this country.

Appendix A - Critical legislation and regulations for review include:

Clinical Trials Directive 2001/20/EC (to be replaced by a new clinical trials regulation in 2018)

Good Clinical Practice Directive 2005/28/EC

Protection of Personal Data Directive 95/46/EC (to be replaced by a new data protection regulation in May 2018)

Personal Data Regulation 2005/58/EC

In Vitro Diagnostic Medical Devices Regulation 98/79/EC (to be applied in 2020 and 2022)

Active Implantable Medical Devices Directive 90/385/EEC

Medical Devices Directive 93/42/EEC

Advanced Therapies Regulation 1394/2007

Paediatric Drugs Regulation 1901/2006 (to be reviewed in 2017)

Genetically Modified Organism Directive 2009/41/EC

Genetically Modified Organism Directive 2001/18/EC

The Delegated Regulation on Safety Features of Medicinal Products 2016/161 (to be implemented in early 2019)

Orphan Medicinal Products Regulation 141/2000

Draft Directive on Copyright in the Digital Single Market

Protection of Animals used for Scientific Purposes Directive 2010/63/EU