

Medicines and Healthcare products Regulatory Agency

Board Meeting - public session 20 October 2017

**Early Access to Medicines (EAMS) and Innovation Office
Progress report****Issue/ Purpose:**

To update to the Board on the status of the EAMS and the Innovation Office

Summary:

This paper provides a progress report on two regulatory initiatives introduced in the past few years to support innovation: the Early Access to Medicines Scheme (EAMS) introduced in 2014, and the Innovation Office introduced in 2013.

Both initiatives have successfully developed into central components of the Agency's support for innovation. The Early Access to Medicines scheme has addressed a public health need to improve access to important innovative medicines, and has successfully facilitated the access to new medicines and new indications for hundreds of patients with unmet medical need. The Innovation Office has answered approximately 500 regulatory queries and held over 100 meetings with enquirers, who are mainly SMEs and academics, two groups who were identified as requiring regulatory assistance.

Resource implications:

Existing resource to support the EAMS and the innovation office will continue. Monitoring of resource is appropriate and will reflect future workload demand.

EU Referendum implications:

EAMS: Requirements depend on what the UK's licensing system looks like post exit.
Innovation office: It may be that the number of queries sent to the Innovation Office will increase, as we continue to strengthen, develop the Innovation Office and increasing outreach to the Innovators and other organisations

Timings: On going

Action required by Board: for information only

Links:

Author(s):

Dr Daniel O'Connor
Dr Julian Bonnerjea
Ms Nathalie Gilmore

Which of the five themes in the Corporate Plan 2013/2018 does the paper support?

Theme 2: Bringing innovation safely to market

If relevant, which Business Plan strategic activity does it support?

Aim 2: Enable innovation

CET Sponsors: Dr Siu Ping Lam

Progress Report on EAMS and the Innovation Office

Introduction:

The MHRA has several initiatives and procedures that contribute to its key strategic priority of enabling innovation in the areas of medicines, devices, advanced manufacturing and biologics. Some of these procedures, such as the national scientific advice service, the Regulatory Information Service and the Clinical Trial helpline, are well-established and have been operating for a decade or more. They remain important components of the agency's support for innovation and are popular with the stakeholder groups they target. In the last few years these procedures have been supplemented by other initiatives, aimed at speeding up access to innovative products for NHS patients.

This paper provides an update on two of the MHRA's more recent services to support innovation, the Early Access to Medicines Scheme and the Innovation Office.

Early Access to Medicines Scheme

The Early Access to Medicines Scheme (EAMS) was launched in the UK in April 2014 following a public consultation and government response, which outlined the scope of a potential scheme. The MHRA is responsible for two pivotal milestone decisions in the EAMS process, the Promising Innovative Medicine (PIM) designation and the Early Access to Medicines Scheme scientific opinion (SO), described in an EAMS public assessment report and three EAMS treatment protocols. Since launch, there has been an increasing number of applications received for PIM and SO for innovative medicines for areas of high unmet medical need. Recent approvals include:

- 11 medicinal products were granted PIM Designations in the past 6 months, these include medicines to treat:
 - o Oncology - lung, renal cell, gastro-intestinal
 - o Haemophilia A

- 4 EAMS scientific opinions were granted in the past 6 months, allowing patients access to treatments for:
 - o respiratory function related to Duchenne Muscular Dystrophy
 - o chronic hepatitis C infection
 - o neurotrophic keratitis
 - o lung cancer

In the first 3 years the following products were granted scientific opinions:

Product	Company	Indication
Pembrolizumab	Merck Sharp & Dohme Limited	Treatment of unresectable or metastatic melanoma in adults
Pembrolizumab	Merck Sharp & Dohme Limited	For the treatment of adults with metastatic non-small cell lung cancer (NSCLC) whose tumours express PD-L1 as determined by the PD-L1 IHC 22C3 pharmDx Kit with a tumour proportion score (TPS) of greater than or equal to 50% tumour cells and who have not received prior systemic therapy or whose disease has progressed on or after platinum-

		containing chemotherapy. Patients who have not received prior therapy should be negative for EGFR sensitising mutation and ALK translocation. Patients whose disease has progressed on or after platinum-containing chemotherapy and who have an EGFR sensitising mutation or an ALK translocation should also have had disease progression on approved therapies for these aberrations prior to receiving pembrolizumab.
Venetoclax	Abbvie Ltd	Treatment of adult patients with chronic lymphocytic leukaemia in the presence of 17p deletion or TP53 mutations.
Nivolumab	Bristol-Myers Squibb Pharmaceutical Limited	Treatment of advanced (unresectable or metastatic) melanoma in adults
Nivolumab	Bristol-Myers Squibb Pharmaceutical Limited	Treatment of locally advanced or metastatic non-small cell lung cancer (NSCLC)
Nivolumab	Bristol-Myers Squibb Pharmaceutical Limited	Treatment as monotherapy of locally advanced or metastatic non-squamous non-small cell lung cancer (NSCLC) after prior chemotherapy in adults
Nivolumab	Bristol-Myers Squibb Pharmaceutical Limited	Treatment of patients with advanced Renal Cell Carcinoma after prior therapy in adults
Nivolumab	Bristol-Myers Squibb Pharmaceutical Limited	Nivolumab is indicated for the treatment of patients with Hodgkin or Non-Hodgkin lymphoma.
Osimertinib	AstraZeneca UK Limited	The treatment of patients with locally advanced or metastatic EGFR T790M mutation-positive non-small cell lung cancer (NSCLC) who have progressed on or after EGFR TKI therapy
Sacubitril/valsartan	Novartis Pharmaceuticals UK Ltd	LCZ696 is indicated for the treatment of heart failure (NYHA class II-IV) in patients with systolic dysfunction. LCZ696 has been shown to reduce the rate of cardiovascular death and heart failure hospitalisation compared to angiotensin-converting enzyme (ACE) inhibitor therapy.
Atezolizumab	Roche Products Limited	Treatment of adult patients with locally advanced or metastatic urothelial carcinoma after prior chemotherapy or who are considered cisplatin ineligible.

Total numbers of applications to date are indicated in the tables below:

EAMS step I PIM designations - April 2014 to September 2017	
Applications received	56
PIM designations granted	38
PIM designations refused	8
PIM designations withdrawn	2
PIM designations pending	8
EAMS step II applications - April 2014 to September 2017	
Applications received	19
Opinions awarded	16
Opinions refused	2
Opinions pending	0

A number of proposals to strengthen the scheme since launch have been implemented in the last three years, through the Office for Life Science's EAMS task force. For example, the stakeholder group has produced EAMS 'principles' and an operational guidance describing the relationships between MHRA, NICE and NHS England.

<https://www.gov.uk/government/publications/early-access-to-medicines-scheme-eams-how-the-scheme-works/early-access-to-medicines-scheme-eams-task-group-and-principles>

The UK Government's Accelerated Access Review (AAR) aims to speed up access to innovative drugs, devices and diagnostics for NHS patients. The review was launched in March 2015, with a final report published in October 2016. The review makes recommendations to government on reforms to accelerate access and includes 'EAMS' as a term of reference. The government response to the AAR report is still currently awaited. However, as part of the proposals the government recently announced that six million pounds will be made available over 3 years to support SMEs in using EAMS for data collection. The MHRA will not be involved in allocating the money to individual companies but will need to provide additional guidance to companies to support their development plans. This is work in progress with colleagues in the OLS.

Licensing colleagues recently published an invited editorial on EAMS in a new journal:

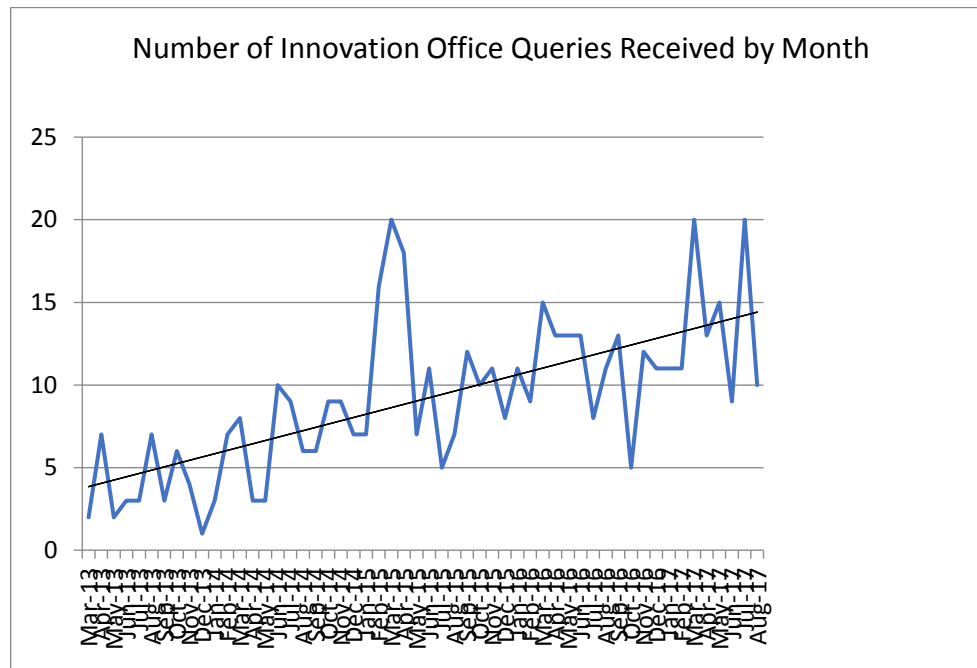
<http://medicine-access.pointofcarejournals.com/article/cfcb354d-ced4-470b-beb1-3b0889c7f0b7>

In summary, the Early Access to Medicines scheme addresses a public health need to improve access to important innovative medicines, and has successfully facilitated the access to new medicines and new indications for hundreds of patients with unmet medical need.

Innovation Office

The MHRA's Innovation Office is a virtual office that was introduced in 2013 to engage with individuals, academic institutions, companies or developers of innovative medicines and medical devices and to provide regulatory advice. To date, the Innovation Office has received approximately 500 queries and held over 100 meetings with enquirers. As anticipated, the majority of the enquiries have come from SMEs (33%) and academics (27%).

In the 4 years since it was established the Innovation Office has received an increasing number of enquiries and this is considered a measure of short-term success.



Most enquiries are answered by email; more complex queries are discussed in face-to-face meetings (to date there have been 100 such advice meetings). Only regulatory advice and high level scientific advice is provided which are appropriate for the majority of enquiries which are at early stages of development; enquirers with specific technical/scientific issues are redirected to the (chargeable) national scientific advice service when relevant.

The national scientific advice service has also developed in recent years, offering companies the opportunity to get joint advice with NICE either through parallel scientific advice or through Safe Harbour meetings organised by the Office of Market Access. A joint national scientific advice meeting with another Competent Authority also took place recently, which is the first time this type of meeting has been offered. Another interesting scientific advice meeting was held with a group of charities (Breast Cancer Now, Anticancer Fund and the BGMA) to discuss the repurposing of cancer drugs; the meeting discussion is described as extremely useful in the following Nature article

<http://www.nature.com/nrclinonc/journal/v14/n8/full/nrclinonc.2017.69.html?foxtrotcallback=true>

In 2014 the Innovation Office expanded its work to collaborate with three other UK regulatory bodies (the Human Tissue Authority (HTA), the Human Fertilisation and Embryology Authority (HFEA) and the Health Research Authority(HRA)) to provide a service now known as the Regulatory Advice Service on Regenerative Medicines

(RASRM). More recently NICE have also started participating in RASRM so that the Health Technology Assessment perspective can be provided when relevant. Input is also provided by the Health and Safety Executive (HSE) and DEFRA for enquiries on genetically modified organisms. To date RASRM has provided responses to approximately 50 enquiries and in a recent customer survey 100% of enquirers stated that they would recommend RASRM and would use it again.

Innovation Office queries have covered a very wide range of topics, from simple classification queries (e.g. whether a product is a biological medicinal product or an advanced therapeutic medicinal product) to complex legal/regulatory questions (e.g. on re-purposing of established medical products by third parties).

In round figures 75% of the queries have related to medicines and 25% to medical devices.

Many of the enquiries reflect the growing complexity of treatments being developed, such as combinations of novel ATMPs, devices and chemical substances; devices to improve delivery of vaccinations; and 3D printing of personalised polypills. It is encouraging to see that the therapeutic areas being addressed by innovators are wide ranging, including (in the last few months) oropharyngeal head and neck cancer, breast cancer, immunotherapy, cartilage repair, burns treatments and haemophilia.

The nine case studies that have been published on the MHRA website highlight the broad scope of the advice offered by the Innovation Office

<https://www.gov.uk/government/groups/mhra-innovation-office#read-our-case-studies>

Together with colleagues from our Communication Division, we will continue to publicise the success of the Innovation Office via such case studies.

An Innovation Steering Group is in the process of being established. This group will include representatives from Licensing, IE&S, Communications and Devices Divisions as well as the Horizon Scanning Lead. This group will adopt a proactive approach and may undertake activities such as visiting university technology transfer offices, academic hubs, medical charity organisations, etc. to inform them of the various ways that the MHRA supports innovation and can offer advice.