Medicines and Healthcare products Regulatory Agency

11 April 2016

Update on progress with the Joint Patient Safety and Vigilance Strategy

Purpose:
This paper provides the Board with an update on the Joint Patient Safety and Vigilance Strategy (JPSVS) that was first in September 2015 and again in February 2016. The Board's views are invited and comments welcomed on the progress to date and the proposals to date from the Project Teams to move forward the Strategy.

Summary
MHRA has a wide range of responsibilities regarding patient safety. Our vigilance functions cover medicines, medical devices and blood and within these areas there is already much commonality. A Cross Agency project has been underway since October 2015 to carry out a strategic review of common activities and look for synergies in the way we work and the systems we use to support these activities. Blood vigilance has been decided as out of scope at this stage.

Five strategic objectives have been set for the strategy and a governance system has been established with a Steering group and Co-ordination group formed. Three Project Teams with cross Agency representation have been tasked with addressing the strategic objectives as follows:

Project Team 1: Incident reporting and signal detection
Project Team 2: Risk benefit assessment
Project Team 3: Improving delivery, targeting and audit of safety messages and risk communication

The strategy is still gathering information and gaining clarity on different working practices. The immediate priority for all three Project Teams has been to gain an understanding of how the various systems and procedures work, looking for areas of potential synergy or complementary work. The objective of data capture for incident reporting and signal detection is most advanced and Board is asked to endorse this as the priority area for gaining from synergies in particular from the digital transformation strategy.

Resource implications:
Resources have already been committed to the activities underway. Resources required for further work are being considered by Project Teams and, will require a new business case and will be brought separately to the Corporate Executive Team.

Timings:
- Report back Q2 2016 on developed recommendations
- Develop project plans and engage with stakeholders Q2-Q4

Action required by The Board:
The Board is invited to comment on the JPSVS and endorse the deliverables proposed so far.

Links: MHRA Divisions: Vigilance and Risk Management of Medicines (VRMM), Devices; Inspection, Enforcement and Standards (I,E&S), Information Management Division (IMD) and Comms

Author(s): Mick Foy, Tony Sant
I,E&S, Comms and IMD consulted via Project Teams, Coordination and Steering Groups

FOI/publication issues:
The strategy will include external promotion campaigns.

Can paper be published on INsite? (List any deletions required) Yes

CET sponsors: June Raine, John Wilkinson

1. Issue

1.1 The purpose of this paper is to bring the Board up to date on progress with the JPSVS. This is a broad-ranging strategy looking at potential synergies in the Agency's vigilance systems for medicines and devices, based on a model of excellence. Work on the objective of data capture for incident reporting and signal detection is most advanced and Board is asked to endorse this as the priority area for gaining from synergies, in particular from the digital transformation strategy. The Departmental Sponsor and Minister have identified the JPSVS as a key priority particularly in delivering our digital strategy, advising us to be "as ambitious as we can be". The Board is asked to agree the 4 key deliverables proposed by Project Team 1. The views of the Board are also invited on the other key objectives. The resourcing of the strategy remains under discussion in the cross-Agency JPSVS Coordinating Group, and specific business cases will be prepared for CET consideration as required.

2. Background

2.1 A proposal to initiate a JPSVS involving medical devices and medicines was discussed at CET in August 2015 and then at the Agency Board in September 2015 and again in February 2016. It was agreed that the JPSVS is a high priority for the Agency, and that we are to investigate where synergies can be achieved across our vigilance activities and that we should work towards a common excellence model for the management of incident reports, signal detection, risk assessment, and safety communications. The overall goal is to strengthen the MHRA's capability to protect public health.

2.2 The CET first considered the Strategy in September 2015. The paper set out the background to the Agency's vigilance activities, which have changed and improved over many years resulting in implementation in MHRA of the "excellence model" for pharmacovigilance (Pharmacoepidemiology and Drug safety 2002), which was also adopted internationally. Since then, pharmacovigilance legislation has supported the development of systems to follow that model, to gather the best evidence through strengthened requirements for ADR reporting and use of registries and other data sets such as CPRD; to support robust safety decision-making as benefit risk evaluation uses wider sources of evidence in integrated fashion rather than spontaneous case reports alone; and provided a range of effective regulatory tools to protect public health from harm from medicines. For medicines the excellence model can be seen as the starting point, leading to the proactive approach to investigating safety and filling knowledge gaps rather than reactive fire-fighting.

2.3 Over the past few years Devices has been progressively introducing a risk based approach to managing adverse incidents. This has been driven both out of necessity from a 50% increase in reports in the last 5 years and a desire to further increase reporting as an aid to signal detection. This is tightly linked to a broader MHRA Devices initiative to enhance vigilance and post market surveillance data sharing by the early creation of an EU vigilance data repository. This will eventually provide significantly enhanced signal detection and co-ordination of work sharing across the network of competent authorities in Europe.

2.4 Although there are many commonalities (case management system, signal detection function, benefit risk assessments) all these improvement programmes have highlighted the sometimes unnecessary diversity of approaches taken across medicines and medical devices areas. This is often confusing for MHRA staff, and external stakeholders. The same diversity occurs among member states and other international regulators.

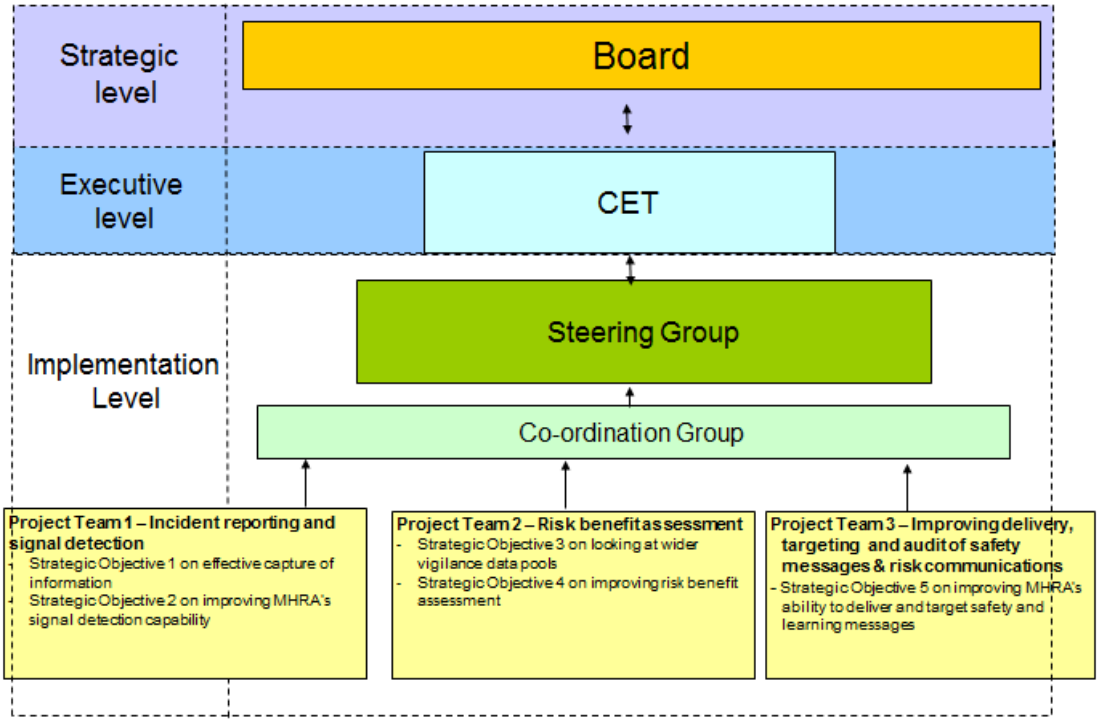
2.5 In light of this, in September 2015 the CET agreed to the development of a strategy to pursue a common excellence model for patient safety and vigilance for both medicines and devices. The Board recently considered an update on the JPSVS and was fully supportive of the initiatives, the importance of the Unique Device Identifier (UDI) for identifying products and improving surveillance was identified and the Health and Social Care Information Centre (HSCIC) were identified as a key enabler to the success of implementation of UDI in healthcare systems. The Board stressed the importance getting the deliverables right rather than rushing.

3. Establishing the initiative and agreed objectives

3.1 Since October a cross-Agency project has been initiated with a governance structure and terms of reference agreed. Three project teams have formed to investigate the strategic priorities. These are i) incident reporting and signal detection, ii) risk benefit assessment, and iii) improving delivery, targeting and audit of safety messages and risk communications. The Project Teams are working to develop proposals to take the strategy forward.

3.2 A project manager has been appointed and a Co-ordination group formed to report into a Steering group co-chaired by the directors of Devices and VRMM. All groups and teams have the necessary cross Agency membership to address the agreed strategic objectives of the initiative.

Governance structure:



3.3 We have identified the following core strategic objectives around which to build the integrated vigilance strategy:

Strategic Objective 1 - ***Effective capture of information from incident reports and also the wider scientific evidence base, including social media information and other technologies such as the YC App***. The WEB-RADR project has presented opportunities for utilising new technologies and gaining an understanding of how social media can support vigilance activities. The Yellow Card app should be extended to devices and learnings from the social media investigations should be applied to all our activities.

Strategic Objective 2 - ***Improving MHRA's signal detection capability***. The signal detection tools we use continue to evolve, VRMM have a good track record in utilising new tools and methodologies to detect signals. We will look at how to further develop these tools and new text analytics and signal management tools in light of new data flows and at how best to apply these tools and methods to all MHRA areas.

Strategic Objective 3 - ***Improved access to wider vigilance data pools such as CPRD and national and international registries to support benefit risk assessment***. Access to CPRD and other data sources is vital in supporting benefit/risk evaluation. We will look at how best to utilise such data for all vigilance activities.

Strategic Objective 4 - ***Improving benefit/risk assessment***. We will review how risk management and risk minimisation measures in devices and medicines may benefit from a common approach. There are well established approaches, regulatory

tools and templates in pharmacovigilance which may be applicable to devices particularly in light of the forthcoming devices regulations

Strategic Objective 5 - ***Improving MHRA's ability to deliver and target safety and learning messages.*** Led by Comms, we will review how we communicate safety messages, the channels we use, and how we measure the impact of our messages to those who need to be aware and deliver action and behaviour changes to improve UK patient safety.

4. Progress with the JPSVS and key deliverables proposed by the Project Teams

The three Project Teams have been tasked with breaking down the strategic objectives into smaller tasks and have also undertaken a mapping exercise to other ongoing initiatives to ensure where applicable these feed into the JPSVS.

The Project Teams are going through the process of gaining a better understanding of the way each other works and the relevant processes and regulations, the progress in each Project Team is summarised below.

4.1 Project Team 1

Project Team 1 is responsible for delivering Strategic Objective 1 on effective capture of information and Strategic Objective 2 on improving MHRA's signal detection capability.

4.1.1 To deliver on **Strategic Objective 1** the Project Team is proposing the following deliverables:

Deliverable 1 An app for reporting of incidents associated with counterfeits, defective medicines & devices: the extension of the Yellow Card app for other incident types will provide an additional method for reporters to access the Scheme and bring these areas in line with the current offering for adverse drug reactions.

Deliverable 2 Develop a common standard for electronic reporting for device incidents (in line with E2B for medicines): this would standardise device incident reporting for users and manufacturers to allow MHRA to collect data in a standardised format, thereby improving data quality for signal generation. It would have the ability to facilitate data exchange from healthcare professionals or between regulators and will allow for pooling of data for enhanced signal detection within Europe and possibly worldwide. It will also aid in the design of one intelligent web form to report to MHRA. .

Project Team 1 aim to develop a device Yellow Card standard that can be introduced into UK healthcare systems such as local risk management systems, General Practice IT systems via the GP System of Choice Programme (GPSoC), and possibly secondary care and pharmacy systems. This work will be taken forward in conjunction with delivering the new case management system for devices.

Deliverable 3 Proposal for a new workstream or category for aggregated devices incident data: this would streamline processes and allow better sharing of

data and knowledge across all areas, which would be particularly important for signals arising from drug-device combinations. The nature of the data will require a different type of assessment to determine if it represents a potential signal and should be fed into a signal management process. The project team will begin to work up the principles for a new shared signal management process across the MHRA.

4.1.2 To deliver on **Strategic Objective 2** the Project Team is proposing the following deliverables:

Deliverable 4 Implementation of formalised signal detection methodology for single incident device reports with a signal management/case management system and consideration of whether tools and processes can be shared: this would strengthen our ability to detect signals and enhance public health protection. A report will be produced looking at the different possibilities for signal detection for devices and the possibility of the development of a system with shared tools. Existing tools and methodologies will be investigated to determine whether current medicines software is viable for devices. The review will include disproportionality methods and free text analytics options.

4.2 Project Team 2

Project Team 2 is responsible for delivering Strategic Objective 3 on looking at wider vigilance data pools and Strategic Objective 4 on improving risk benefit assessment.

4.2.1 To deliver on **Strategic Objective 3** the Project Team is proposing the following deliverables:

Deliverable 5 Understanding which data sources are currently available: this would make better use of available data sources and would help to support regulatory decision making and help to assess longer term patient outcomes. The Project Team proposes to report on exactly what data the Agency already have available within CPRD and whether there is further scope for making proactive use of the data, and the linkages already in place, to support pharmacovigilance and device vigilance. The Project Team will explore whether routine linking of CPRD data to additional data sources could allow for epidemiological studies on benefit/risk e.g. device registries, and aim to set up a new routine linkage between CPRD and an external data source identified as of the highest value. The Project Team will input into ongoing work to make best use of the Unique Device Identifier within large databases so it is available for epidemiological purposes. Mechanisms will be established for the exchange of statistical and epidemiological advice between Medicines and Devices divisions and explore whether Devices would benefit from additional in-house expertise in epidemiology and statistics.

4.2.2 To deliver on **Strategic Objective 4** the Project Team is proposing the following deliverables:

Deliverable 6 Strengthening systems for sharing information (non-urgent and urgent) including new signals, arising for devices and drug-device combinations, with other device regulators: This would facilitate data exchange between Member States across medicines and devices sectors without delay and

ensure consistency of information shared. It could also reduce duplicating effort. The Project Team plans to examine the potential for strengthening and aligning current medical devices and medicines systems to support exchange of information, both urgent and non-urgent, amongst Member States and within the Agency.

Deliverable 7 Post market surveillance enhancement for devices: This will provide a platform for companies to provide regular, cumulative reviews on important risks, giving greater confidence in decision-making and will reduce the need to request tailored follow-up information on individual incident reports. It is proposed that a summary of the data arising from the pre-marketing risk management plan and/or post-marketing surveillance plan could be included within the first post-market Periodic Safety Update Report (PSUR) to be reviewed by the Competent Authority. It is anticipated that there will be a requirement for PSURs for Devices in the new device legislation and the Project Team will work with Devices to influence appropriate legislative wording initially and looking further ahead, to influence EU Device PSUR content and format.
The Project Team will review the EU Medicines PSUR template to see what could be applied to Devices. The Project Team are considering the development of a UK Pilot scheme for PSURs for selected high risk devices.

4.3 Project Team 3

Project Team 3 is responsible for delivering Strategic Objective 5 on improving MHRA's ability to deliver and target safety and learning messages.

4.3.1 **Deliverable 8 Develop a project plan to deliver on Strategic Objective 5**, this is divided into four phases. This is summarised below.

Phase	Action	Indicative time
1	Discovery	Jan-Feb 2016
2	Analysis and develop broad recommendations	Mar-May 2016
3	Refinement and external testing of recommendations	Jun-Aug 2016
4	Report writing	Sep 2016

The Project Team's vision is to optimise the way we communicate devices and medicines risks to healthcare professionals by providing them with timely, accurate and authoritative information which is recognised as important and acted upon as necessary. The Project Team propose to achieve this by listening to and acting on what healthcare care professionals tell us to make sure our risk communication meets their needs and by rationalising internal processes and digital systems to manage all risk communications for the agency

The Project Team has conducted a literature review to inform recommendations and identify any gaps in the available evidence. A gap has been identified in the available evidence regarding risk communications for medical devices. Primary research might need to be conducted as part of the project to address this gap (e.g. a survey of medical device safety officers). The Project Team is also reviewing the outcomes of some key health professional surveys to inform their recommendations.

The Project Team has reviewed the MHRA Risk Communication with Healthcare Professionals Strategy 2013 – 2015 to determine which recommendations have been implemented, why some of the recommendations have not been implemented and which recommendations to carry forward into their report. As part of this work they are also seeing if there is any potential for optimising how we use the Central Alerting System (CAS) and the findings of a current review of e-DHCP to communicate with healthcare professionals.

Customer services is reviewing the types of communications sent to health professionals by the 'wider healthcare family' in the UK (e.g. NICE, NHS England, Public Health England, BNF, NPC etc.). This is to establish what types of communications UK health professionals are receiving, from whom, and how often. It is important to understand better how busy healthcare professionals want to receive information about medicines and devices risks and the Project Team is designing a range of user testing and engagement activities across key groups, such as GPs and pharmacists and will use these opportunities to listen and also test out proposals for change.

VRMM are currently reviewing the outputs of the European Commission Joint Action SCOPE initiative and the mechanisms in place for electronically communicating important medicines safety information with healthcare professionals EU wide and this work will be fed in the JPSVS strategy.

5. Next steps

Subject to the Board endorsing the deliverables identified so far and advising on any major gaps, over the next two months the teams will be building on these and developing project plans, outlining the resource requirements to achieve those deliverables and bringing forward business cases as appropriate.

We will report back to CET on progress and with developed recommendations in Q2. Subject to CET approval we will then seek to engage with external stakeholders to test our thinking.

6. Resources

The JPSVS is an important and significant undertaking for the Agency, and if we are to achieve a truly integrated approach to vigilance, underpinned by the best IT and communications it will require appropriate development and resourcing. It will also require re-thinking the anticipated timing of the digital transformation in order to ensure optimal synergies are achieved. Project Teams are beginning to identify the resource they will need in order to deliver and it is proposed that following CET discussion that the relevant business cases are developed to provide this resource.

7. Key questions on which the Board advice is sought:

The Board is invited to comment on progress with the JPSVS strategy and in particular is asked:

i. To agree the 8 main deliverables proposed so far, and that relevant business cases will be brought forward.
ii. To consider if any aspects of potential synergies in the two vigilance systems are missing from the project – gap analysis.
iii. To agree that the digital strategy needs to be reviewed to ensure support for achieving the optimal synergies.

VRMM & Devices