Safeguarding public health

MHRA

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Guidance on the operation of the EU vigilance system in the UK

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Directives Bulletin series

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Abbreviations

AIC	Adverse Incident Centre
AIMDD	Active Implantable Medical Devices Directive
AITS	Adverse Incidents Tracking System
CA	EU competent authority
CPA	Consumer Protection Act
EEA	European Economic Area
FSCA	Field Safety Corrective Action
FSN	Field Safety Notice
GHTF	Global Harmonisation Task Force
IVD	In vitro diagnostic device
IVDD	In Vitro Diagnostic Medical Devices Directive
MDA	Medical Device Alert
MDD	Medical Devices Directive
MHRA	Medicines and Healthcare products Regulatory Agency
NB	Notified body
NCA	National competent authority
NCAR	National competent authority report

1 Introduction

This is the third edition of Directives Bulletin No 3 on the EU vigilance system as operated in the UK. It has been amended to incorporate references to revision 5 of the MEDDEV guidance 2.12-1 [1] issued in April 2007 for implementation by December 2007 (hereafter called the 'Vigilance MEDDEV rev 5' in the text and 'VM5' in the reference column). This latest edition of the bulletin provides guidance for manufacturers and authorised representatives on:

VM5 [1]

- the aim of the EU vigilance system (also known in the UK as the 'adverse incident reporting' system) as specified in the directives;
- the role of the vigilance system within manufacturers' post-market surveillance systems; and
- the practicalities of the operation of the EU vigilance system in the UK, including how it operates alongside the existing voluntary adverse incident reporting systems for users in the UK.

The guidance sections in section 4 follow the order of Vigilance MEDDEV rev 5 and provide:

- best practice guidance for manufacturers (or their representatives) for working effectively with the MHRA on adverse incidents and Field Safety Corrective Action (recalls) taking into account the latest guidance in Vigilance MEDDEV rev 5.
- links to the relevant portions of the directives and the implementing UK legislation
- links to the relevant paragraphs of the Vigilance MEDDEV rev 5

The bulletin clarifies the role played by the manufacturer or their authorised representative and by the MHRA in ensuring efficient and effective adverse incident investigation and Field Safety Corrective Action (FSCA) in the UK. It provides advice on the nature and timing of information which must be submitted by the manufacturer or their authorised representative to the MHRA for assessment. It also explains the nature of MHRA's assessments and outlines MHRA's expectations for information to be provided during the course of the investigation or FSCA.

It is important to note that all of the manufacturer reporting sections within the Vigilance MEDDEV rev 5 have been revised. Some, for example reporting timescales and use error reports, have also introduced new criteria and new terms, such as UNANTICIPATED, SERIOUS PUBLIC HEALTH THREAT, USE ERROR and ABNORMAL USE, which have raised new requirements and subsequent expectations from competent authorities. **Manufacturers' internal systems will require updating to reflect these significant changes from the previous version of the Vigilance MEDDEV.**

VM5, Section 4 definitions

This guidance is intended to supplement, **not** substitute the internal post-market surveillance and vigilance procedures which are expected to be an integral part of any manufacturer's quality system.

2 Overview of the EU vigilance system

The Active Implantable Medical Devices Directive (AIMDD) [2], the Medical Devices Directive (MDD) [3], and the In Vitro Diagnostic Medical Devices Directive (IVDD) [4] include requirements for medical device manufacturers to report certain types of incidents to competent authorities (i.e. the MHRA in the UK). The directives also outline the obligations on competent authorities (CAs) to share details of certain incidents reported to them, between each other and with the Commission. The vigilance system is the name given to the process of notification and evaluation of these incidents. The vigilance system was set up under the medical devices directives to minimise risks to the safety of patients, users and others by reducing the likelihood of a serious incident involving a medical device being repeated in different places in the European Union.

AIMDD
MDD
IVDD

This is achieved in several ways:

- through manufacturers submitting vigilance reports to the relevant competent authorities (the MHRA in the UK);
- through the evaluation of reported incidents by the competent authorities;
- where appropriate, through the dissemination of information which could be used to prevent a recurrence of the incident, or to alleviate the consequences of such incidents;
- where appropriate, by the device being updated or taken off the market.

In the UK all of the medical devices directives have been implemented via the Medical Devices Regulations 2002 [5] under the Consumer Protection Act [6].

Medical Devices Regulations 2002 [5]

Vigilance MEDDEV rev 5 provides detailed guidance for the effective operation of the vigilance system in Europe. It came into force on 01 January 2008 and manufacturers of medical devices that are available on the UK market are expected to be thoroughly familiar and compliant with this MEDDEV.

VM5

3 Will reported information be confidential?

Reports received by competent authorities will be held in confidence, as required by the directives. However, when information received identifies a Field Safety Corrective Action or a threat to patient safety, a notification (in confidence) informing member states, the Commission and members of the Global Harmonisation Task Force (GHTF) will be disseminated to ensure awareness of the issue by national competent authorities and promote co-ordinated action (see section 4.5 below). Field Safety Notices, once issued by the manufacturer, are not considered confidential. In addition, information necessary to prevent further incidents in the UK may be placed on the MHRA website in the form of manufacturer Field Safety Notices or issued to the health service as Medical Devices Alerts or other safety warnings.

Article 20, MDD
Article 19, IVDMDD
Article 15, AIMDD

4 Guide to the operation of the EU vigilance system in the UK

4.1. Post-market surveillance systems

To enable effective vigilance reporting and FSCAs to be undertaken where appropriate, manufacturers have a responsibility to implement an effective post-market surveillance system to ensure that any problems or risks associated with the use of their device once freely marketed are identified early, reported to competent authorities, and acted upon.

Directives: Post-market surveillance systems
VM5 4.10 Definition: adverse incident

Manufacturers operating in compliance with the standard 'Medical devices – Quality management systems – requirements for regulatory purposes' (BS EN ISO 13485 2003) [7] are expected to establish a documented procedure for a feedback system. This system should be designed to provide early warning of quality problems and for input into corrective and preventative action processes.

BS EN ISO 13485 2003 [7]

All manufacturers should maintain records of adverse incident reports received from any source about all their products. Adverse incident reports should be evaluated promptly by competent personnel, bringing in external expertise if necessary, and appropriate action taken. The evaluation of each report and the action taken should be detailed in the manufacturer's records. Dependent upon the nature of the device, actions other than review of customer/user complaints (e.g. customer/user surveys, literature reviews, post-market clinical follow-up etc.) may be appropriate as part of a manufacturer's post-market surveillance system.

The Vigilance MEDDEV rev 5 makes it clear that a manufacturer's post-market surveillance system is often, but not exclusively, the source of information on vigilance and even expects due diligence given to continuity of post-market surveillance and vigilance procedures during mergers and acquisitions. Further guidance is given in the notified bodies' recommendations on post-market surveillance (see reference 8).

VM5, Scope;
VM5, General Principles

NB-MED/2.12/Rec1 Post Marketing Surveillance (PMS) post-market/production [8]

A FSCA is generally required where information indicates an unacceptable increase in risk posed by a medical device which has been distributed into the supply chain (i.e. to any recipient other than the manufacturer's directly supplied distributor).This information may arise from any aspect of post-market surveillance, such as field experience of device use, device service or maintenance, the results of internal device testing, review of device design, changes in production or component specifications etc. The standard 'Medical devices. Application of risk management to medical devices' (BS EN ISO 14971 2007) [9] provides very helpful state of the art guidance on this topic.

VM5 4.6 definition FSCA

BS EN ISO 14971 2007 [9]

Two key factors which are essential to allow manufacturers to undertake effective Field Safety Corrective Actions are:

Establishing a procedure to facilitate FSCA

Manufacturers must establish procedures for FSCAs which are applicable to their own operations, compatible with this guidance and capable of being implemented at any time. This procedure should be regularly checked and up-dated as necessary. Management and designated personnel should be familiar with their responsibilities in connection with the procedure and with the records. Company representatives may be used to recover stock that is the subject of a FSCA.

Maintaining records to facilitate traceability of distributed product to users

The manufacturer's records should include:

- records of medical devices by manufacturing date and batch or serial number
- traceability of medical devices to directly supplied users and directly supplied distributors.

Contracts with distributors should ensure that onward traceability records to end users are maintained as far as is practicable.

Essential requirements (ERs) related to this are intended to ensure that devices carry sufficient markings to allow identification in circumstances such as a FSCA.

AIMDD, ER 12
MDD, ER 13.5
IVDD, ER 8.6

In order to expedite the FSCA, records should be easy to follow and should be accessible to the person(s) responsible for the FSCA. The system of recording distribution of medical devices should enable directly supplied users and directly supplied distributors to be identified immediately. Records should be retained throughout the time in which a FSCA may be necessary (i.e. the specified life-time of the product).

Additional advice on what activities might form part of an appropriate and effective post-market surveillance for a particular product is available as EU guidance for notified bodies. For some devices post-market clinical follow-up may be necessary. EU guidance on this is available [8] and [10].

NB-MED/2.12/Rec1 PMS post-market/production [8].
MEDDEV 2.12/2 May 2004 Guidelines on post-market clinical follow-up [10]

4.2. Incident reporting for manufacturers

All manufacturers, or their authorised representatives, placing medical devices on the market in the EU are legally bound to report certain incidents immediately.

Directives: Requirement for incident reporting by manufacturers

The MHRA expects manufacturers or authorised representatives operating in the UK to comply with the incident reporting guidance contained in Vigilance MEDDEV rev 5. As stated in the Introduction, MEDDEV rev 5 contains newly defined terms and revised criteria for manufacturer reporting. Manufacturers will therefore need to update any internal systems that were based on previous versions of Vigilance MEDDEV in order to comply with the new version.

VM5, Section 4 Definitions

The Vigilance MEDDEV rev 5 provides detailed guidance on:

- determining whether a particular incident meets the reporting criteria — VM5, Sections 5.1.1-5
- periodic summary reporting — VM5, Section 5.1.2
- trend reporting — VM5, Section 5.1.4
- correct reporting forms to ensure suitable data is provided — VM5, Section 5.1.6
- reporting timescales — VM5, Section 5.1.7
- to whom to report — VM5, Section 5.1.8

Examples of reportable incidents and a model incident reporting form are also provided. — VM5, Annex 1, VM5, Annex 3

The MHRA has also issued device specific guidance on reportable and non reportable incidents for:

- breast implants — Breast implants
- coronary stents — Coronary stents
- heart valves — Heart valves
- joint replacement implants — Joint replacement implants

The MHRA will monitor that manufacturers are using the latest forms and Vigilance MEDDEV rev 5 guidelines to encourage wider use. Where there are breaches of the Medical Devices Regulations, enforcement action may be taken (see section 4.6 below).

Any incidents occurring in the UK should be reported to the Adverse Incident Centre (AIC) at the MHRA.

Separate guidance on reporting incidents occurring during clinical investigations is provided in Guidance Note 1 on the MHRA's website. This will be kept up to date with European agreements. These incidents should also be sent to AIC – preferably using MORE (see below) – with a note indicating the incident(s) have occurred during a clinical investigation. The clinical investigation number should also be included. — MHRA, Guidance on the EC Medical Devices Directives, Guidance Note 1

The MHRA's strong preference is for manufacturers or their representatives to use MORE, MHRA's **M**anufacturers' **O**n-line **R**eporting **E**nvironment, to report to the AIC. MORE allows submission of all types of vigilance reports (initial, follow-up, final, trend reports, periodic summary reports, and Field Safety Corrective Action reports) to the AIC. This accords with Section 5.1.6 of Vigilance MEDDEV rev 5 which encourages the use of electronic reporting. MORE II is compliant with the Vigilance MEDDEV rev 5. — MORE Login, VM5, Section 5.1.6

Manufacturers, authorised representatives and suppliers may access the MORE system and register as MORE reporters by choosing the 'medical device reporting' button on the MHRA website. — www.mhra.gov.uk

Further detailed help can be obtained by contacting the Adverse Incident Centre.

If you are unable to use MORE, the alternative ways of submitting vigilance reports are:
Via e-mail: aic@mhra.gsi.gov.uk — aic@mhra.gsi.gov.uk

By fax: 020 7084 3109
By post: Adverse Incident Centre
Medicines & Healthcare products Regulatory Agency
Market Towers
1 Nine Elms Road
London SW8 5NQ

The MHRA promotes the use of MORE and other electronic reporting routes to other competent authorities because they help improve the efficiency and effectiveness of the vigilance process. The MHRA is also heavily involved (via the EU Vigilance Medical Device Expert Group and the Global Harmonisation Task Force Study Group 2) in developing an internationally agreed XML (extensible mark-up language) schema for exchanging medical device vigilance reports electronically. MORE will allow manufacturers to submit and create reports in compliance with the schema. Manufacturers wishing to use XML for medical device reporting should contact the Adverse Incident Centre for guidance and a copy of the latest XML schema.

GHTF SG2 N87 An XML Schema for the electronic transfer of adverse event data between manufacturers, authorised representatives and National Competent Authorities

Where relevant, the MHRA will work with UK suppliers when dealing with vigilance issues, but will also communicate directly with the manufacturer or the authorised representative when required. This is particularly so when suppliers act, intentionally or otherwise, as a barrier to good vigilance communications with the manufacturer.

The MHRA publishes an annual review of its adverse incident related work as the second Device Bulletin of the calendar year. This is issued in hard copy form to the health service and is also available via the MHRA website (Publications > Safety guidance> Device Bulletins).

MHRA website

4.3. User reports

In parallel with the manufacturers' vigilance reporting system, the MHRA also operates a **voluntary** system under which a person involved in the use, maintenance or provision of a device can report any problems to the MHRA's Adverse Incident Centre (AIC). This system covers all categories of medical devices and some medical equipment used within the UK health and social care system. The MHRA provides users with up-to-date guidance on how incidents should be reported to the Adverse Incident Centre and operates an on-line system for user reporting. Further information about the voluntary reporting scheme can be obtained from the MHRA's website or from the Adverse Incident Centre. (Contact details above).

When competent authorities receive reports from users or the public, they are obliged by the medical devices directives to ensure that the manufacturer of the device concerned, or his authorised representative, is also informed of the report. Section 6.1 of Vigilance MEDDEV rev 5 provides guidance to competent authorities about this.

Directives: user reports

VM5, Section 6.1

Incidents submitted to the MHRA via the user reporting system are entered onto our Adverse Incident Tracking System (AITS) database, given an AITS reference number and risk assessed. This initial risk assessment will allocate the incident into one of five investigation/action categories: Urgent -

In depth, In depth, Standard, Information, and Others. We then contact the manufacturer of the device involved to explain what we expect back from them or their representative. Our incident management processes are described in Appendix B.

Appendix B

Section 5.2 of Vigilance MEDDEV rev 5 provides guidance on what manufacturers should do when they receive a user report from a competent authority. Further guidance for manufacturers involving device users in the vigilance system is given in Annex 9 of Vigilance MEDDEV rev 5

VM5, Section 5.2

VM5, Annex 9

If the MHRA is requesting a reply other than an acknowledgement, we will not expect an initial vigilance report unless one is specifically requested. However, we will expect the manufacturer to undertake their own assessment of the report against the directives and the vigilance guidance and submit follow-up and/or final reports as appropriate. If the manufacturer considers that the user report does not meet the vigilance reporting requirements of the MEDDEV rev 5, they should justify this in a response to the MHRA.

4.4 Investigations

Generally the manufacturer will carry out the investigation while the competent authority monitors progress. Vigilance MEDDEV rev 5 provides guidance on several aspects of the investigation process both for manufacturers and competent authorities:

For manufacturers:

- principles of the investigation — VM5, Section 5.3.1
- access to the device suspected to be involved in the incident — VM5, Section 5.3.2
- principles of follow-up and investigation outcome — VM5, Section 5.4.1
- follow-up report — VM5, Section 5.4.2
- final report — VM5, Section 5.4.3

For competent authorities:

- receipt and assessment/evaluation of reports — VM5, Section 6 intro
- risk evaluation by the national competent authority — VM5, Section 6.2.1
- monitoring of manufacturers subsequent actions — VM5, Section 6.2.2
- national competent authority actions — VM5, Section 6.2.3
- completion of the investigation — VM5, Section 6.4

The MHRA has lengthy experience of investigating UK user reports, and takes an active role in many investigations. Our adverse incident assessment and management processes are outlined in Appendix B.

Appendix B

The data gleaned from all incidents is logged onto the active and surveillance databases that comprise AITS. This helps the MHRA to maintain an up-to-date picture of the various device types and failure modes and to assist the post-market surveillance process in protecting public health.

The manufacturer also generally takes the required post-investigative action, while the competent authority retains an overview and, if necessary, advises other competent authorities. However, the MHRA will challenge

manufacturers if it believes that the proposed post-investigation action is inadequate to protect public health, particularly where the MHRA believes a Field Safety Corrective Action is needed.

If an incident leads to a device Field Safety Corrective Action, the MHRA, after its assessment, will immediately inform the European Commission and other competent authorities (see section 4.5 below) in accordance with Vigilance MEDDEV revision 5.

4.5. Field Safety Corrective Action (FSCA)

The medical devices directives place 'systematic recall' reporting requirements upon manufacturers, and assessment and notification requirements upon competent authorities.

Directives: Field Safety Corrective Action

The Vigilance MEDDEV rev 5 uses the term Field Safety Corrective Action (FSCA) as a synonym for 'systematic recall'. FSCAs describe more precisely a range of field activities including those previously referred to as 'recalls' or 'withdrawals' since there is no longer a harmonised definition of these terms.

VM5, Section 4 Definitions FSCA

The MHRA encourages manufacturers or authorised representatives operating in the UK to comply with the Field Safety Corrective Action reporting guidance contained in Vigilance MEDDEV rev 5, which is arranged as follows:

Guidance for manufacturers:

- notification to national competent authorities — VM5, Section 5.4.4.1
- content of the Field Safety Notice — VM5, Section 5.4.4.2
- European Field Safety Corrective Action report form — VM5, Annex 4
- template for a Field Safety Notice — VM5, Annex 5

For competent authorities:

- circumstances where a co-ordinating national competent authority is needed — VM5, Section 6.3.1
- determination of the co-ordinating national competent authority — VM5, Section 6.3.2
- the tasks of the co-ordinating national competent authority — VM5, Section 6.3.3
- dissemination of information between national competent authorities — VM5, Section 6.3.5
- dissemination of information outside national competent authorities by a national competent authority — VM5, Section 6.3.6

The MHRA uses a national competent authority report format in compliance with the guidance in Annex 6.

Annex 6

In the UK the MHRA also encourages the advice on FSCAs to be applied to field corrective actions which are outside the scope of the notification requirements identified within the medical devices directives. Such action may arise from a more minor device-related safety issue which does not pose a risk of death or serious injury. Alternatively, the field action may address a risk of death or serious injury posed by medical equipment not considered to be a medical device according to the definition given in the EU directives. We would expect manufacturers or their authorised representatives to notify the MHRA of these on a voluntary basis, in view of our broader responsibility to protect the safety of patients and other users

across the UK. In such cases it may be necessary for the MHRA to monitor the field corrective action in the UK in the interests of patient safety, even though it may be outside the scope of the notification requirements identified within the medical devices directives and the Vigilance MEDDEV rev 5.

Determining the need for a FSCA

Risk assessment in accordance with BS EN ISO 14971 is a key element of determining the need for a FSCA. Appropriate, and possibly external, expertise must be used to determine the potential harm and the risk properly. In cases of any doubt, the MHRA expects a predisposition to undertake a Field Safety Corrective Action. For example, a small probability that unused affected devices remain available for return is not in itself a reason for not instituting a FSCA. Only if the manufacturer can demonstrate that no affected devices remain available in the field can there be a justification for not conducting a FSCA. Appendices C and D provide some examples of field actions considered to be FSCAs and field actions not considered to be FSCAs respectively.

BS EN ISO 14971

Appendix C, Appendix D

Initial information needed by the MHRA

The MHRA expects manufacturers to provide the information required by the Vigilance MEDDEV Rev5 using MORE (preferably) or the appropriate FSCA form and FSN template. This should include the information being provided to undertake the FSCA e.g. changes to the instructions for use (IFU), instructions and drawings where retro-fit is taking place, details of additional labelling or the method of destruction or re-work of products affected by the FSCA. Normally, the MHRA should be advised of the FSCA a minimum of 48 hours prior to its initiation (VM5 5.4.4.1), particularly when the MHRA is the coordinating authority, as determined within the Vigilance MEDDEV rev 5. However, in order to avoid unacceptable delay where urgent FSCA action is needed because of serious safety risks, the MHRA accepts that, in a very few cases, prior consultation may not be possible.

VM5, Annex 4 and 5

When the draft FSN is sent to the MHRA prior to dispatch, please allow a minimum of 48 hours for the MHRA to provide comments on the appropriateness of the text for the UK situation. The appropriateness of the manufacturer's FSCA and FSN is one of a number of factors which the MHRA takes into account in determining the need to issue additional advice directly to users. Where the MHRA believes that the FSN does not fully meet the Vigilance MEDDEV rev 5 requirements, and in particular explain the risk and how it will be removed/reduced, the MHRA may issue its own safety warning to users.

VM5 5.4.4.1

The manufacturer should ensure that a full, detailed list of affected users in the UK to whom the FSN is being distributed can be provided. The list must include the contact name and address for each intended recipient.

Where the field safety corrective action has ongoing clinical implications for patients or requires ongoing actions by clinical staff (for example implants and diagnostic results), the manufacturer may need to inform medical directors or nursing directors or directors of relevant clinical departments, such as clinical pathology, cardiology, etc.

In the case of FSCAs of widely used equipment the manufacturer may need to inform chief executives, medical directors, clinical staff, risk managers etc. Alternatively in cases involving specialist equipment the manufacturer may only need to inform named clinicians or particular posts.

Some of the information (for example, batch size, distribution chains and quantities distributed) may not be immediately available. Notification to the MHRA should not be delayed pending this data. It is helpful to provide approximate information until accurate details are available. However, the accurate data is expected to be used and made available to the MHRA rapidly in FSCA situations.

Field Safety Notices (FSNs)

The FSN should be pitched at an appropriate level for the intended audience, with special sensitivity in the circumstance that the notice is to be sent directly to patients/members of the public.

Manufacturers may consider including information on the cause of the problem if it is known at the time the FSN is issued. However, distribution of the FSN should not be delayed pending provision of this information. The risk to the user is the key element. In such circumstances, once the cause is known, a permanent remedy/modification FSCA and FSN may be required following the issue of the first FSN.

The FSN should be issued by appropriate means (e.g. mail, facsimile, e-mail, other electronic communication etc), as soon as possible after the final version has been agreed. Some form of proof of delivery must be obtained where possible. As registered mail will usually only provide evidence that a post room has received the FSN, the MHRA recommends that an acknowledgement form is included for the recipient to return, as this can provide evidence that the intended recipient/user has received the FSN.

VM5 Section 5.4.4.2 – 10 and following.

In addition the MHRA requires a high quality electronic version of the FSN. This will be placed on the MHRA's website as a public record and so should have the correct contact details for the UK or the EU, and should only include generic information on the recipients i.e. it should not be a sample with an individual address on it. Covering letters should also be included.

If distribution is limited, the information within the FSN may be given in person or by telephone. However, this should be confirmed by issuing a FSN afterwards.

Many clinicians are not accessible at short notice, and supplies staff or technicians may be the first to initiate the FSCA action. Written confirmation is therefore important to ensure that each relevant clinician is fully aware of the FSCA and the reasons for it, as they carry clinical responsibility for patient welfare. It is also important that a factual record of all the information provided to users is available for future reference.

Envelopes for despatch of FSNs to users
It is recommended that a distinctive envelope is used to ensure that it is easily distinguished from other mail received from the manufacturer.

Addressing FSNs and envelopes
The Field Safety Notice or any covering letter ideally should be addressed to a named person. It is therefore important for manufacturers to maintain accurate and sufficiently detailed customer records. If the name of the appropriate healthcare professional is not known, it should be addressed to the head of the appropriate healthcare facility.

Retail/consumer level FSCAs
Additional measures are likely to be necessary when medical devices have been distributed to consumers 'over the counter' via retail outlets and wholesalers such as: pharmacies, supermarkets, or health food stores; or by other means e.g. family planning clinics.

As for other FSCAs the manufacturer will need to prepare a FSN. However, it may be necessary to produce two FSNs: one with the message and actions necessary for the wholesalers and retailer etc. and another with the message and actions necessary to be passed on to the end user. Expert advice may also be required.

Again, where practicable, the MHRA should be sent any draft FSN for comment prior to it being distributed, particularly where the MHRA will be passing the information onto other CAs whilst acting as the co-ordinating CA in Europe.

Headings for retail/consumer level FSNs should read: 'Urgent Medical Device Safety Problem' as the general public is unlikely to understand the term FSCA.

The text should be composed as for a standard FSN but with the following additional information:

(i) if the hazard to the patient is serious, indications of clinical symptoms and advice to consult a medical practitioner, if desired;
and
(ii) where the manufacturer is unable to make a correction or offer replacement stock within a reasonable period, an indication of the likely time frame for correction or provision of replacement stock and safety precautions to be taken during the delay.

The manufacturer or their authorised representative should keep relevant wholesalers advised of the FSCA. This is especially relevant when the FSCA may involve wholesalers in considerable time and expense in issuing credit notes, handling returned stock and forwarding replacements.

In addition, paid advertisements or media releases may be required to alert the public or sectors of the public that a product is the subject of the FSCA presents a serious hazard to health.

Paid advertisements and media releases are generally reserved for urgent situations where other means for preventing use of the product appear inadequate. They may not be required where complete and accurate distribution lists are available.

The FSCA strategy will need to specify whether a general public warning

(advertisement or media release) is needed and/or whether more specialised news media are to be used. The latter can allow targeting of specific segments of the population to prevent unnecessary and harmful anxiety amongst the general public and advise that consultation between patients and their doctors is essential.

Whichever method is used, inform the MHRA first and send a draft copy to the MHRA for comment.

A. Paid advertisements

The manufacturer or their authorised representative is to insert, as quickly as possible, paid advertisements in the daily print media.

The content of the advertisements and the choice of daily media should be agreed with the MHRA.

Consider the need to inform particular target or minority groups.

B. Media release

The text of the media release should be jointly developed by the manufacturer or their authorised representative and the MHRA. The media release must contain sufficient detail to uniquely define the product, together with a clear outline of the problem (without causing unnecessary alarm) and the action(s) that should be taken by the consumer. A helpline number for 24 hour access to further information, and contact details for, where necessary, medical advice, should also be provided.

The media release is usually issued by the manufacturer, by the MHRA or both on the day that the FSN is issued.

Further advice on advertising and using the media can be found in 'Product safety in Europe: A guide to corrective action including recalls' on the Department for Better Regulation and Reform (BERR) website [11].

Product safety in Europe: A guide to corrective action including recalls [11]

Responsibilities of the MHRA

(a) The MHRA will provide copies of this guidance (electronically) and advice and assistance in relation to FSNs and associated FSCA strategies.

(b) Where there is doubt, the MHRA will provide its interpretation of whether the action proposed by the manufacturer falls within the definition of a FSCA.

(c) The MHRA will publish all FSNs relevant to the UK on their website, where they will stay for up to 1 calendar year.

(d) The MHRA will consider the need to issue its own advice directly to the health service or other users. Circumstances where this may be necessary include the need to:

- supplement information provided by the manufacturer e.g. when the message of the FSN is not clear or where additional advice is

needed
- bring the FSCA to the attention of a wider user base than that contacted directly by the manufacturer, e.g. to target different or additional professionals or others
- notify Chief Executives of NHS trusts/other management personnel, for reasons of clinical governance, of information being issued directly to healthcare professionals
- issue an MHRA statement where a safety issue has sufficiently high profile that the health service would expect it
- help ensure the message gets to everyone affected when a very large number of customers and centres are affected, and/or where , there is a possibility that devices may have been moved between healthcare providers/centres without the manufacturer's/distributor's knowledge
- help speed up response to a manufacturer's request for acknowledgement of receipt of a FSN, or
- give different advice to that provided by the manufacturer, although through negotiation we try to avoid this wherever possible

With few exceptions the MHRA will provide the manufacturer or their authorised representative with the opportunity to comment upon the draft of any safety related notice to users and to confirm the target audience. Circumstances where an MHRA safety-related notice may not be required include where there is high confidence that all potentially affected device users have been accurately identified and contacted by the manufacturer, and where the MHRA considers the information issued and action taken by the manufacturer to be sufficient.

(e) As soon as possible after we receive sufficient information from the manufacturer, the details of every FSCA, including the FSN, are formally reviewed at the weekly MHRA technical committee meeting. However, in the case of delayed information, the FSCA will automatically be reviewed at the committee meeting after 30 working days have elapsed. As already stated, the MHRA expects rapid replies to queries concerning FSCAs. A time limit of 21 days has been introduced to facilitate the MHRA's formal review of FSCAs. Late replies to information requests will increase the likelihood that the MHRA will consider separate advice to the health service to be necessary to protect public health. It may also mean that the MHRA will initiate legal compliance action.

(f) For FSCAs with particular public, media or health interest, the MHRA will liaise with colleagues in the Department of Health and with the manufacturer to prepare information for general release. Media statements should be worded so as to minimise any public alarm. Where necessary UK health ministers will be kept informed.

(g) As part of its role of protecting public health, MHRA will check and monitor the effectiveness of FSN distribution using the manufacturer's list of UK users affected by the FSCA. This may include checking that affected users have received and are following the advice contained in the manufacturer's FSN.

(h) The MHRA will agree appropriate milestones with the manufacturer or authorised representative for the provision of FSCA status reports, including

a final report (see 'Feedback information to be submitted by manufacturer to the MHRA' below). the MHRA examines all the reports received from the manufacturer and an ongoing assessment is made of the effectiveness of the FSCA action. This may include further referral to the weekly MHRA technical committee meeting.

(i) Where a FSCA is initiated following a report submitted to MHRA by a user, or others, the MHRA will communicate the outcome of the investigation to the reporter.

(j) In the interests of worldwide patient/user safety and separate from obligations under the EC directives, the MHRA may also provide copies of MHRA safety warnings (e.g. MDAs) issued to the health service in the UK to other regulatory authorities outside the EEA. The manufacturer will be advised of the extent of intended onward notification by the MHRA.

Feedback information to be submitted by the manufacturer to MHRA

When MHRA is notified of a FSCA, appropriate milestones will be confirmed for the manufacturer or their authorised representative to provide a follow-up report and a final report after implementation of the FSCA. It is recognised that the timing of final reports will vary between FSCAs. However in view of the MHRA's intention (see Responsibilities of the MHRA paragraph (e) above) to review all FSCA's after a maximum of 30 working days, **a follow-up report should be submitted by the manufacturer within a maximum of 21 working days of the initial notification of the FSCA.**

a) Follow-up report
If the FSCA includes return of affected stock to the manufacturer or an update of IFU or modification/update to existing devices on- or off-site, records of completed actions should be fully reconciled against distribution records in order to maintain control of the progress of the FSCA.

The follow-up reports should provide:

- an update on the progress of reconciliation of the FSCA actions, and estimated timescales for completion
- confirmation, where practicable, that users (e.g. hospitals, specialist clinicians, or users in the community) have received the FSN.

b) Final report
This should contain the following information:

- the final outcome of the reconciliation of the FSCA actions;
- root cause of the problem and proposed action to reduce the chance of recurrence e.g. redesign, update in the field, improved IFU;
- if not already provided, final instructions and drawings where retro-fit is taking place, or the method of destruction or re-work of products affected by the FSCA.

Co-ordinating competent authority notification responsibilities to other member states

When acting as the coordinating or lead CA, as identified according to the hierarchy within the Vigilance MEDDEV rev 5 , MHRA takes responsibility for issuing an NCA report (NCAR) advising all other EEA Member States and the European Commission of the FSCA, as well as the other National Competent Authorities involved in the Global Harmonisation Task Force NCAR exchange programme. The purpose of this CA report is two-fold:

VM5, Section 6.3.2

- by providing confirmation of which countries are affected by the FSCA, all CAs are able to check whether they have been appropriately notified by the manufacturer, and review the need to consider any further action;
- to provide an opportunity for the co-ordinating CA to give additional information to supplement that provided in the manufacturer's notification, or to comment on the action being undertaken by the manufacturer.

The MHRA formally assesses the need to issue a NCAR, based on the Vigilance MEDDEV rev 5 guidance at the same weekly MHRA technical committee meeting at which the FSCA is reviewed.

VM5, Section 6.2.3 6.3.3

4.6. MHRA enforcement action and the safeguard clause

The MHRA expects manufacturers and their representatives to comply with the UK Medical Devices Regulations and recommends the procedures in the Vigilance MEDDEV rev 5 guidance. Similarly, in keeping with the government's enforcement concordat [12], the MHRA will, where possible, work with manufacturers on a voluntary basis in order to bring about compliance. However, where agreement is not possible, the MHRA will use the full extent of UK and European legislation to protect the health of the public.

Hampton Review. Reducing administrative burdens: effective inspection and enforcement [12]

Vigilance MEDDEV rev 5 provides guidance on possible compliance action and the safeguard clause.

VM5, Section 6.2.3, 6.3.4
Directives: the safeguard clause

In the UK the manufacturer is required to comply with the relevant provisions of the Medical Devices Regulations [5].

The MHRA has a duty to enforce this legislation on behalf of the Secretary of State and has delegated responsibility for England, Wales, Scotland and Northern Ireland. This involves establishing that the Medical Devices Regulations and General Product Safety Regulations have been complied with, and ensuring that the appropriate action is taken wherever necessary to prohibit or restrict unsafe products being placed on the market.

Link to MHRA website (Enforcement policy)

The above obligation is met by the MHRA in 5 basic ways:

1. Any complaints about CE marked products or products which are not CE marked that are drawn to our attention, will be investigated.

2. Selection for inspection of a sample of manufacturers who place their products on the UK market. Inclusion in this proactive exercise does not mean that there has been a breach of the Regulations.

3. Regular monitoring of the activity of Notified Bodies designated by the MHRA to assess the compliance of manufacturers of, in the main, higher risk devices.

4. Investigations undertaken as a result of vigilance reports.

5. Investigations as to complaints concerning unsafe products supplied/distributed to consumers under the General Product Safety Regulations 2005.

Enforcement action
As well as prosecution, the MHRA has a range of other enforcement powers under the Consumer Protection Act 1987, Medical Devices Regulations 2002, and General Product Safety Regulations 2005 which are as follows:

Under the Consumer Protection Act 1987
Offences against the Safety Regulations (Section 12). The main restrictions on the supply of devices under the Regulations are also offences under the Act.

Prohibition Notices (Section 13). These prohibit the supply of any goods which are considered to be unsafe or are not in compliance with Regulations.

Notices to Warn (Section 13). These require a manufacturer to issue at his own expense a warning about any relevant goods which are considered unsafe.

Suspension Notices (Section 14). These suspend the supply of any goods for a period of up to six months, where it is suspected that a safety provision has been contravened. Compensation may be payable if it is later established that there was no contravention.

Forfeiture Orders (Section 16 and 17). Enforcement authorities may apply for an order for the forfeiture of goods where there has been a contravention of a safety provision.

Obtaining Information (Section 18). MHRA, on behalf of the Secretary of State, has the power to serve a notice requiring a person to furnish information or to produce records for the purposes of deciding whether to serve, vary or revoke a prohibition notice or a notice to warn.

Test Purchases (Section 28). This gives enforcement authorities the power to make test purchases for the purposes of ascertaining whether or not the Regulations have been breached.

Under the Medical Devices Regulations 2002

Compliance Notice (Regulation 62(1)). In addition, Regulations 62(1) of the Medical Devices Regulations 2002 provides the power to issue notices for non-compliance with the Regulations (Compliance Notice). These powers are in the main, for technical breaches where a device is thought not to conform to an essential requirement, but where it does not compromise health or safety. The notice generally requires the person on whom it is served to ensure that the device conforms within the period stated in the notice.

Restriction Notice. Regulation 63(1) of the Medical Devices Regulations 2002 provides that where the MHRA is of the opinion that it is necessary to restrict the availability of a particular medical device, or of devices of a particular class or description, in order to protect the health or safety of any individual or individuals of any class or description, they may serve on any person a Restriction Notice. This will include such directions restricting the availability of that device or those devices as appears to be necessary.

Under the General Product Safety Regulations 2005

Recall Notice. Regulation 15(1) of the General Product Safety Regulations 2005 provide that where the MHRA has reasonable grounds for believing that a product is a dangerous product, which has already been supplied/and or made available to consumers, then it may serve a recall notice. This will compulsorily require the manufacturer to organise the return of the product from consumers. In the event that an individual fails to comply with a recall notice, the MHRA may recover from that person [where action is taken for failure to comply with a recall notice its costs and/or expenses]. This is recoverable as a civil debt within the meaning [England and Wales] of section 58 of the Magistrates Courts Act 1980 and [Northern Ireland] of the Magistrates Courts (Northern Ireland) Order 1981 (SI 1981 No 1675) under Regulation 15 (11).

4.7. MHRA timescales summary

The table below lists the response timescale limits that the MHRA expects for a manufacturer or authorised representative operating in the UK at the various stages of the vigilance process.

Topic	Timescale limits
Initial manufacturer reports	Following awareness by the manufacturer of 'Serious public health threat': • 2 calendar days. Following the date of awareness of the event: • 10 elapsed calendar days for 'Death or unanticipated serious deterioration in state of health' • 30 elapsed calendar days for 'Other incidents'.
Manufacturer's written acknowledgement of user reports from CA to manufacturer.	Within 3 working days of receiving user report.
Follow-up/final reports	Made on the date specified in the initial/previous report or as subsequently negotiated with the MHRA. Otherwise no longer than 30 working days.
Draft Field Safety Notice	Minimum of 48 hours for MHRA to comment.
Response to the MHRA on queries concerning FSCA/corrective action reports.	21 working days or as specifically requested in writing by the MHRA.
Comments on draft Medical Device Alerts (MDAs)	Provided within: • 24 hours of receipt for 'Immediate action' MDAs and national competent authority reports • 5 working days of receipt for 'Action' MDAs.

5 References

1 The European Commission MEDDEV 2.12/1 April 2007-rev 5 Guidelines on a Medical Devices Vigilance System.
http://ec.europa.eu/enterprise/medical_devices/meddev/

2 The European Commission. Council Directive 90/285/EEC concerning Active Implantable Medical Devices, OJ L189/ 20.7.90.
http://ec.europa.eu/enterprise/medical_devices/legislation_en.htm

3 The European Commission. Council Directive 93/42/EEC concerning Medical Devices, OJ 169/ 12.7.93.
http://ec.europa.eu/enterprise/medical_devices/legislation_en.htm

4 The European Commission. Council Directive 98/79/EC concerning In Vitro Diagnostic Medical Devices, OJ331/ 7.12.98.
http://ec.europa.eu/enterprise/medical_devices/legislation_en.htm

5 The Medical Devices Regulations 2002. Statutory Instrument 2002 No. 618.
ISBN 0110423178.
http://www.opsi.gov.uk/SI/si2002/20020618.htm

6 Statutory Instrument 1987 No. 1680 (C.51). The Consumer Protection Act 1987 (Commencement No. 1) Order 1987 ISBN 0 11 077680 1.
http://www.opsi.gov.uk/si/si1987/Uksi_19871680_en_1.htm

7 BSI. 'Medical devices. Quality management systems. Requirements for regulatory purposes'. BS EN ISO 13485 2003. ISBN 978 0 580 59396 3.
http://www.bsi-global.com/en/Standards-and-Publications/Industry-Sectors/Healthcare/Healthcare-Products/BS-EN-ISO-134852003/

8 Co-ordination of Notified Bodies Medical Devices (NB-MED) on Council Directives 90/385/EEC, 93/42/EEC and 98/79/EC. Recommendation NB-MED/2.12/Rec1 Post Marketing Surveillance (PMS) post-market/production.
http://www.team-nb.org/Documents/R2_12-1_rev11.pdf

9 BSI. 'Medical devices. Application of risk management to medical devices'. BS EN ISO 14971 2007. ISBN 978 0 580 50605 5.
http://www.bsi-global.com/en/Shop/Publication-Detail/?pid=000000000030091423

10 MEDDEV 2.12/2 May 2004 Guidelines on post-market clinical follow-up.
http://ec.europa.eu/enterprise/medical_devices/meddev/

11 DTI CCPD et al. Product safety in Europe: A guide to corrective action including recalls. 2004.
http://www.berr.gov.uk/consumers/Safety/products/recall/index.html

12 HM Treasury. Reducing administrative burdens: effective inspection and enforcement (the Hampton review). March 2005 ISBN: 1 84532 088 3.
http://www.hm-treasury.gov.uk/budget/budget_05/other_documents/bud_bud05_hampton.cfm

Appendix A: Medical devices directives – post-market surveillance and vigilance clauses

Directives: Requirement for post-market surveillance system

Each relevant annex on conformity assessment in the medical devices directives requires an undertaking by the manufacturer:

- *'to institute and keep up-dated a post-marketing surveillance system. The undertaking shall include an obligation for the manufacturer to notify the competent authorities of the following events immediately on learning of them…'* **(AIMDD)**

- *'to institute and keep up to date a systematic procedure to review experience gained from devices in the post-production phase and to implement appropriate means to apply any necessary corrective action. This undertaking must include an obligation for the manufacturer to notify the competent authorities of the following incidents immediately on learning of them…'* **(MDD)**

- *'to institute and keep up to date a systematic procedure to review experience gained from devices in the post-production phase and to implement appropriate means to apply any necessary corrective actions, taking account of the nature and risks in relation to the product. He shall notify the competent authorities of the following incidents immediately on learning of them…'* **(IVDD)**

In addition

- *'Where, in the context of notification referred to in Article 10, a device notified, bearing the CE marking, is a 'new' product, the manufacturer shall indicate this fact on his notification. The Competent Authority so notified may at any time within the following two years and on justified grounds, require the manufacturer to submit a report relating to the experience gained with the device subsequent to its being placed on the market……'* **(IVDD)**

- *'The Member States shall on request inform the other Member States of the details referred to in paragraphs 1 to 4 [MHRA note: these paragraphs 1 to 4 cover respectively: Vigilance reporting; user reports; CA notifications and the PMS data above] . The procedures implementing this Article shall be adopted in accordance with the procedure referred to in Article 7(2)…'* **(IVDD)**

Directives: Requirement for incident reporting by manufacturers

All manufacturers placing medical devices on the market in the EU are legally bound to report immediately:

• *any malfunction of or deterioration in the characteristics and performance of a device, as well as any inaccuracies in the instruction leaflet, which might lead to or might have led to the death of a patient or to a deterioration in health,*

involving devices they produce or sell, to the relevant national authority, in the UK this is the MHRA.

Directives: User reports

The medical devices directives state:

'Where a Member State requires medical practitioners or the medical institutions to inform the competent authorities of any incidents referred to in paragraph 1, it shall take the necessary steps to ensure that the manufacturer of the device concerned, or his authorized representative established in the Community, is also informed of the incident.' **(MDD)**

'Where a Member State requires medical practitioners, the medical institutions or the organisers of external quality assessment schemes to inform the competent authorities of any incidents referred to in paragraph 1, it shall take the necessary steps to ensure that the manufacturer of the device concerned, or his authorised representative, is also informed of the incident'. **(IVDD)**

Directives: Investigations

The need for manufacturer investigation is implied, rather than explicitly stated, in the directives. Investigation is an essential part of any post-market surveillance system and is necessary to assess the need or otherwise for corrective action following receipt of information that has led to the need to report an initial incident to a competent authority. The following Articles are relevant to subsequent competent authority actions:

Article 8 of the Active Implantable Medical Devices Directive states:

'Member States shall take the necessary steps to ensure that information brought to their knowledge regarding the incidents mentioned below involving a device is recorded and evaluated in a centralised manner:….'

Article 10 of the Medical Devices Directive (MDD) states:

'Member States shall take the necessary steps to ensure that any information brought to their knowledge, in accordance with the provisions of this Directive, regarding the incidents mentioned below involving a Class I, IIa, IIb or III device is recorded and evaluated centrally:….'

Article 11 of the In Vitro Diagnostic Medical Devices Directive states:

'Member States shall take the necessary steps to ensure that any information brought to their knowledge, in accordance with the provisions of this Directive, regarding the incidents mentioned below involving devices bearing the CE marking is recorded and evaluated centrally.'

Directives: Field Safety Corrective Action

All manufacturers placing medical devices on the market in the EU are legally bound to report the following immediately to the relevant national authority (in the UK this is the MHRA):

'any technical or medical reason resulting in withdrawal of a device from the market by the manufacturer.' **(AIMDD)**

'any technical or medical reason connected with the characteristics or the performance of a device for the reasons referred to in subparagraph [See Section 2 above] leading to systematic recall of devices of the same type by the manufacturer.' **(IVDD)**

'any technical or medical reason in relation to the characteristics or performance of a device for the reasons referred to in subparagraph [See Section 2 above], leading to systematic recall of devices of the same type by the manufacturer.' **(MDD)**.

involving devices they produce or sell.

In addition, all competent authorities are legally bound to assess the vigilance reports and inform others as follows:

'After carrying out an assessment, if possible together with the manufacturer, Member States shall, without prejudice to Article 8, immediately inform the Commission and the other Member States of the incidents referred to in paragraph 1 for which relevant measures have been taken or are contemplated.' **(MDD)**

'Member States shall, without prejudice to Article 7, forthwith inform the Commission and the other Member States of the incidents referred to in paragraph 1 and of the relevant measures taken or contemplated.' **(AIMDD***)*

'After carrying out an assessment, if possible together with the manufacturer, Member States shall, without prejudice to Article 8, immediately inform the Commission and the other Member States of the incidents referred to in paragraph 1 for which appropriate measures, including possible withdrawal, have been taken or are contemplated…' **(IVDD)**

In each case 'paragraph 1' refers to the incident reports received by the competent authority and discussed in section 2 and 5 of this document.

Directives: The safeguard clause

'Where a Member State ascertains that the devices referred to in Article 4 (1) and (2) second indent, when correctly installed, maintained and used for their intended purpose, may compromise the health and/or safety of patients, users or, where applicable, other persons, it shall take all appropriate interim measures to withdraw such devices from the market or prohibit or restrict their being placed on the market or put into service…' **(Article 8, MDD)**

'Where a Member State finds that the devices referred to in Article 1 (2) (c) and (d), correctly put into service and used in accordance with their intended purpose, may compromise the health and/or safety of patients, users or, where applicable, other persons, it shall take all appropriate measures to withdraw such devices from the market or prohibit or restrict their being placed on the market or their being put into service…' **(Article 7, AIMDD)**

Where a Member State ascertains that the devices referred to in Article 4(1), when correctly installed, maintained and used for their intended purpose may compromise the health and/or safety of patients, users or, where applicable, other persons, or the safety of property, it shall take all appropriate interim measures to withdraw such devices from the market or prohibit or restrict their being placed on the market or put into service…' **(Article 8 IVDD)**

Directives: Confidentiality

'Without prejudice to the existing national provisions and practices on medical secrets, Member States shall ensure that all the parties involved in the application of this Directive are bound to observe confidentiality with regard to all information obtained in carrying out their tasks. This does not affect the obligation of Member States and notified bodies with regard to mutual information and the dissemination of warnings, nor the obligations of the persons concerned to provide information under criminal law.' **(Article 20 MDD)**

'Without prejudice to national law and practice on medical secrecy, Member States shall ensure that all the parties involved in the application of this Directive are bound to observe confidentiality with regard to information obtained in carrying out their tasks. This does not affect the obligations of Member States and notified bodies with regard to mutual information and the dissemination of warnings, nor the obligations of the persons concerned to provide information under criminal law.' **(Article 19 IVDD)**

'Member States shall ensure that all the parties involved in the application of this Directive are bound to observe confidentiality with regard to all information obtained in carrying out their tasks. This does not affect the obligations of Member States and notified bodies with regard to mutual information and the dissemination of warnings.' **(Article 15 AIMDD)**

Directives: Essential requirements

'Wherever reasonable and practicable, the devices and detachable components must be identified, where appropriate in terms of batches, to allow all appropriate action to detect any potential risk posed by the devices and detachable components.' **(ER 13.5 MDD)**

'Devices must bear a code by which they and their manufacturer can be unequivocably identified (particularly with regard to the type of device and year of manufacture); it must be possible to read this code, if necessary, without the need for a surgical operation.'
(ER 12 AIMDD)

'Wherever reasonable and practicable, the devices and separate components must be identified, where appropriate in terms of batches, to allow all appropriate action to detect any potential risk posed by the devices and detachable components.' **(ER 8.6 IVDD)**

Appendix B: Adverse incident assessment and management processes

The Adverse Incident Centre (AIC) ensures the complete, accurate and timely transfer of all adverse incident report data onto our electronic database (AITS). As each database record is completed, the incident report becomes immediately available electronically to the medical device specialists working within our Device Technology and Safety directorate. In most cases incident report details will have been recorded on our database within one or two working days of receipt of report.

This is followed by a full initial risk management assessment. For the most serious incidents (e.g. those involving a death or serious injury), these processes can be completed within hours. Each risk assessment is conducted by a medical device specialist using a specially tailored risk assessment tool to weigh up the implications of the incident in particular for the safety of the remaining population of patients, healthcare workers and others affected by this type of device. This can include an assessment of the:

- severity of the actual or potential injury caused
- likelihood of recurrence
- causal relationship to the device
- practical scope for risk reduction measures
- state of the art for safety/performance of this technology
- completeness of the information upon which to base the assessment.

It is this assessment that determines the initial level of incident investigation conducted by the MHRA. The levels of investigation are described below:

'**In depth'** investigations are led by one of our medical device specialists who will liaise directly with the relevant manufacturer or authorised representative. They may also involve:

- contact with the device user
- a visit to the site of the incident
- testing of the device involved (either by our own test facilities, by an independent test house or by the manufacturer).

It is these investigations which are most likely to lead the MHRA to issue a Medical Device Alert.

'**Standard**' investigations are initially conducted via a series of standardised letters predominantly issued directly from our Adverse Incident Centre. These incidents may include, among others, those which are the subject of wider trend review by the MHRA. If the report to the MHRA came from a user then the manufacturer or representative is provided with information about the incident, the location and the device involved. The manufacturer then has responsibility for investigating the incident and replying to the MHRA with their findings and conclusions. An MHRA medical device specialist will monitor progress and review the manufacturer's investigation and report.

The MHRA expects manufacturers to investigate incidents allocated to 'In depth' and 'Standard' levels thoroughly and promptly and to respond within the requested timescales to **all** relevant questions raised by MHRA. This may include an estimation of when specific outstanding results/conclusions will become available. Slow or poor responses will be chased and information on poor quality or vigilance systems will be passed to our regulatory compliance section where necessary.

'**Information**' incidents. These are generally cases where the situation had already been resolved, either locally or by the manufacturer, or cases that involve a very low risk of

death or serious injury, or areas which are being assessed by the MHRA through trend review. Again, if the report was sent to the MHRA by a user then the MHRA will pass the information to the manufacturer and will not normally anticipate further communication other than acknowledgement of receipt. Even so the manufacturer should conduct their own risk assessment and appropriate incident investigation.

'**non-MHRA (Devices)**' incidents. A small number of the total reports received do not involve medical devices. These are referred, as appropriate, to other bodies such as DH Estates & Facilities or the Health & Safety Executive. Some other reports are referred to our the MHRA colleagues handling adverse drug reactions and defective medicines. The incident reporter is always informed of the referral.

'**Others**'. In addition to those listed above, some incident records relate to investigations conducted by organisations other than the MHRA e.g. the UK devolved administrations in Northern Ireland and Scotland. These may be allocated to any of the above levels.

Incident reports in all these categories may also be classed as '**knowns**'. These are reports that relate to existing investigations of apparently similar problems with a particular type of device.

Incident reports may be additionally classed as '**echo**' reports. These are effectively duplicate reports of a specific incident of which MHRA has already been informed. Echo reports may arise when any combination of the device user, the manufacturer or the patient report the incident independently.

Appendix C: Examples of field actions considered to be FSCAs

Example 1: Class IIa medical device (Heaf test)

Following reports that a device was appearing to give an abnormally high level of 'false negative results', the manufacturer identified that, although it was performing to specification and requirements, the firing mechanism could be interrupted if it was not handled in a specific way. The instructions for use supplied with the device did not clearly identify this handling requirement. The manufacturer changed the instructions so that the handling of the unit was clearly highlighted in both text and diagram form. The manufacturer felt this was necessary due to the potential problem of misfired units giving rise to false negatives, which in turn could result in inappropriate tuberculosis immunisation. Therefore the manufacturer not only amended the instructions for units still under manufacture, but also identified all units with users to ensure their instructions were similarly up-dated.

Example 2: Syringe pump alarm failure

A manufacturer of a syringe pump identified a small risk that pumps within a range of serial numbers may not alarm if the syringe plunger clamp was left open, putting patients at risk from over- or under-infusion. The manufacturer issued instructions on detecting and correcting the problem. Instructions on checking the 'Clamp Open' detection mechanism during routine maintenance were also added to the service manual.

Example 3: Active implantable medical device

A manufacturer identified that due to a battery defect the rate of battery depletion towards the end of service life of one of their pacemaker models was more rapid than originally anticipated through accelerated testing. There were no un-implanted units remaining with distributors or in hospital supplies available for return to the manufacturer. The manufacturer issued written advice to clinicians following patients implanted with these pacemakers, emphasising the need to schedule clinic visits more frequently than indicated within the physicians' manual supplied with the product in order to check the pacemaker battery status. Failure to detect early signs of battery depletion would place the patient at risk of cessation of pacing therapy.

Example 4: An in vitro diagnostic medical device

A test for detecting bacterial antigen in CSF is found to cross-react with another bacterium which causes meningitis. This could result in the wrong antibiotics being administered. A full FSCA is initiated.

Example 5: A device used in the community

Following reports of users falling from powered wheelchairs due to failures of castor assemblies it was found that the instructions for use did not include adequate user checks and regular maintenance requirements to ensure that the castors could continue to operate correctly. The manufacturer revised the IFU and incorporated new requirements for user functional checks and regular maintenance.

Appendix D: Examples of field actions NOT considered to be FSCAs

Example 5: General medical device

A manufacturer erroneously places an expiry date of 18 months on the labelling of a batch of product. The supported shelf life is 2 years. The manufacturer chooses to issue users of all distributed product with new labelling specifying the correct expiry date.

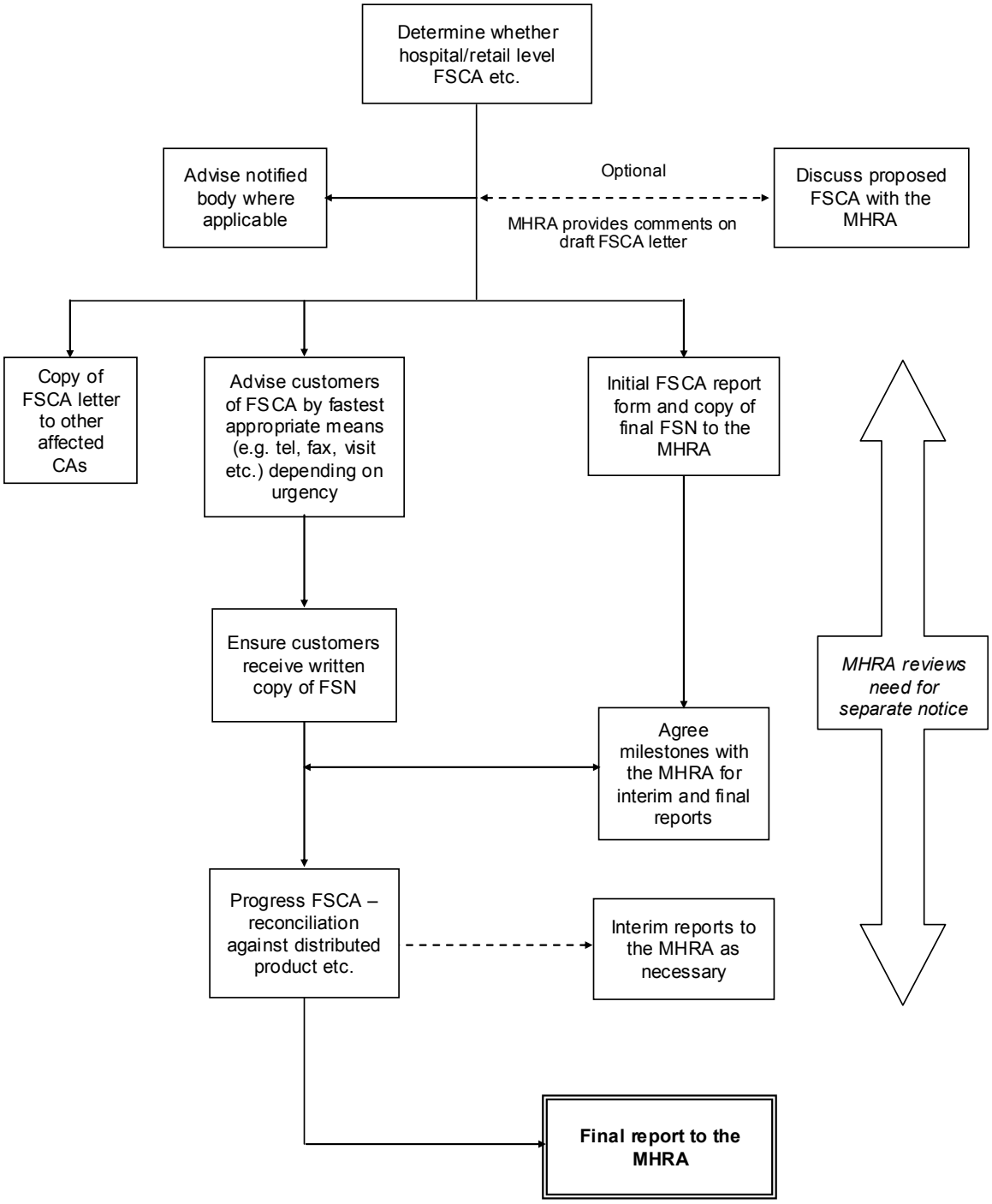
Example 6: General medical device

Through post-market surveillance or vigilance a manufacturer becomes aware of a limited number of reports of misuse of his product (the serious clinical consequences were addressed in the labelling and Instructions for Use. The manufacturer decides to send a letter to all users reminding them of the correct use of the device but no changes of the labelling or instructions for use are necessary. Such an action does not reflect inadequacy of the labelling or instructions for use but rather that assumptions made about the professional knowledge and conduct of users cannot hold true in every circumstance.

Example 7: An in vitro diagnostic medical device

A product is shipped with a reagent missing. Users cannot run the test without it. The manufacturer exchanges distributed product for complete test kits.

Appendix E: FSCA flow chart: manufacturer interaction with the MHRA



Appendix F: Check list of key activities and decisions

1. Is a FSCA needed?

2. What level of communication is needed? (hospital, retail etc.)

3. What should users do with affected product?

4. How urgent is this? Should some early warning be provided immediately by telephone/visit etc. or can it wait for FSN to be issued?

5. Is there a need for recalling or re-testing of patients or review of patient results?

6. Draft FSN

7. Is there time/is it practical to consult with the MHRA regarding draft of FSN?

8. Decide best method to distribute FSN

9. What form of proof of delivery/receipt of FSN is required?

10. Agree milestones with the MHRA for provision of follow-up progress and final reports.

11. Progress FSCA, monitor extent of notification and the reconciliation of FSCA.

12. Issue follow-up progress reports to the MHRA as necessary

13. Progress in-house corrective action strategy to prevent recurrence of problem which led to FSCA.

14. Issue final report to the MHRA, including validation of corrective measures.

Appendix G: Further Information

Copies of this document and other bulletins in our series can be obtained from our website http://www.mhra.gov.uk or by leaving a message on a 24 hour answering machine:
Tel: 020 7084 3203

Alternatively write to:

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Medicines and Healthcare products Regulatory Agency
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London SW8 5NQ

Tel: 020 7084 3300
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E-mail: era@mhra.gsi.gov.uk