REPORT OF THE SG1 MEETING HELD FROM FEBRUARY 6th TO 8th FEBRUARY, 2008 IN BONN, GERMANY

Attendees
Chair - Ginette Michaud
Vice-Chair - Benny Ons
Secretary - Alan Kent

North America
Mark Melkerson – FDA, USA
Nancy Shadeed - Health Canada
Brenda Murphy – MEDEC, Canada
Michael Gropp – AdvaMed, USA
Marlene Valenti – AdvaMed, USA

Europe
John Brennan – European Commission
Elke Lehmann – European Regulatory Authority
Peter Linders – COCIR/EMIG
Carl Wallroth – EUROM VI/EMIG

Asia/Australasia
Mike Flood – TGA, Australia
Hiroshi Yaginuma – MHLW, Japan
Naoki Morooka – JFMDA, Japan
Tomomichi Nakazaki - JFMDA, Japan

Asian Harmonization Working Party
Daphne Yeh – AHWP, Industry representative, Chinese Taipei

Apologies
Cliff Spong - MIAA, Australia
Alfred Kwek – AHWP, Health Sciences Authority, Singapore
Kiyoshi Ikeda – PMDA, Japan

1   Welcome to the meeting and introduction of delegates

Ginette Michaud, Chair of SG1, welcomed SG1 members to the SG1 meeting. The meeting was held in Bonn, Germany at the offices of the Federal Institute for Drugs and Medical Devices (BfArM).

The Chair described arrangements for the meeting and thanked Elke Lehmann for the invitation to hold the meeting at her offices in Bonn.

The Chair welcomed Marlene Valenti to her first meeting of SG1 where she will replace Michael Gropp on SG1. Marlene works for J & J Cordis as VP for Regulatory Affairs and is the AdvaMed representative. The Chair reported that Michael Gropp had resigned from SG1 due to his role on the Steering Committee and recently as vice-Chair of the *ad hoc* Working Group

on Combination Products. The Chair paid tribute to Michael Gropp's considerable contribution to the work of SG1, his diplomacy and his vast knowledge of global regulatory systems. In response, Michael said he would retain a considerable interest in the guidance documents written by SG1 in the future.

During SG1's last meeting in Washington DC, the Latin American and Caribbean countries had been offered two places on SG1, one for a regulator and one for industry. They have yet to take these up.

2   Adoption of Agenda and discussion of procedures for this meeting

 After some rearrangement of items, the Agenda was agreed.

3   Review of the notes of the meeting held on 30th September to 2nd October, 2007 in Washington DC (*Document GHTF. SG1. N066*).

The meeting report was accepted.

4   Review of SG 1 accomplishments and work plan

Prior to the meeting, the Secretary had circulated the most recent version of the *Status of Active GHTF Study Group Work Programme* (SG1/N034R28) dated 10th January 2008 together with SG1's Work Plan of January 2008 . Both documents were reviewed.

The Secretary reported progress as follows:-

a) SG/N044:2007 of August 28th, 2007: *Role of Standards in the Assessment of Medical Devices* was sent to the Steering Committee for endorsement as a Final Document but the Steering Committee asked SG1 to review one paragraph. This will be discussed during this meeting. It is hoped that this will allow SG1 to resubmit the document to the Steering Committee for endorsement as a Final Document.

b) Further changes had been made to the STED document and will be discussed during this meeting. It is hoped that this will allow SG1 to send the document to the Steering Committee for endorsement as a Final Document.

c) Two documents providing guidance on the classification and conformity assessment of IVD medical devices, respectively, had been circulated and will be discussed at this meeting. Subject to any comments made, it is hoped that this will allow SG1 to send the documents to the Steering Committee for endorsement as a Final Documents.

d) On February 4th, 2008, the Secretary chaired a joint meeting of the Study Groups 1/3/4 who had an interest in the draft document entitled *Definitions of the Terms Manufacturer, Authorised Representative, Distributor and Importer*. Comments received on the previous version were discussed. Good progress was made and the revised document will be forwarded to the Steering Committee as a Proposed Document for public comment.

e) The first meeting of an inter-SG group (SG 1/3/4) was held on the previous day to discuss draft guidance on Registration of manufacturers and their medical devices by the Regulatory Authority and Listing of medical devices. Only part of the document was reviewed during

the meeting and discussion will continue during the rest of the week. Progressing this document has a high priority.

    f)   Comments had been received for consideration when SG1 revises its guidance entitled *Essential Principles of Safety and Performance of Medical Devices*. A list of consolidated comments has been circulated. These will be discussed later in the meeting if time permits.

5   SG1(PD)/N044 of 10 January 2008 - Role of Standards in the Assessment of Medical Devices

The change to Clause 5.3 was discussed. The paragraph to which the Steering Committee objected reads:-

> When withdrawing recognition of a standard for reasons other than safety, e.g. when a recognised standard has been revised, the RA should fix a date after which the standard will no longer give a presumption of conformity to an Essential Principle(s). When setting the withdrawal date, the RA should establish a transition period that should be adequate to allow manufacturers to respond in an appropriate manner. In normal circumstances, the transition period should be 3 years and should not exceed 5 years. The RA should publish this information in accordance with its procedures for public notification of recognition of standards.

The text was revised to read:-

> When withdrawing recognition of a standard for reasons other than safety, the RA should fix a date after which the standard will no longer give a presumption of conformity to an Essential Principle(s). When setting such a date, the RA should establish a transition period that should be adequate to allow manufacturers to respond in an appropriate manner. In such circumstances, the transition period should be 3 years. Depending upon the extent and nature of the revision, this transition period may be adapted, as appropriate. The RA should publish this information in accordance with its procedures for public notification of recognition of standards.

The Chair explained that the text of Sections 5.4 to 5.6 had been changed to improve clarity of the document. The relevant paragraphs were modified further and the final text agreed by all attendees. The revised document will be forwarded to the Steering Committee for endorsement as a Final Document, accompanied by an explanatory note describing the changes that have been incorporated.

Action: Chair

6   Role of the ad hoc Software Working Group

Jos Kraus, of the ad hoc Working Group, joined the meeting to describe the role of the WG. It had met during the past 12 months and is likely to meet for at least a further 6 months.

Their work has recommended changes to various SG1 documents. Jos left SG1 with a copy of the recommendations (attached).

The Chair thanked Jos for clarifying the expectations of the software WG as it relates to SG1 guidance.

The Chair will send a written response to the Chair of the ad hoc WG.

Action: Chair

7   SG1(PD)/N011:2008 Summary Technical Documentation for Demonstrating Conformity to the Essential Principles of Safety and Performance of Medical Devices (STED) – resolution of outstanding comments.

The Chair described the changes incorporated into the new version of the documentation.

The meeting discussed how GHTF could encourage the wider use of the STED. It was agreed that that the latest version was much improved over its predecessor, and 'the words' did not seem to be the fundamental barrier to adoption. No obvious action emerged, other than having it published on the GHTF website with a request to the Steering Committee to encourage Founding Member countries to incorporate it into their regulations and/or practices.

Action: Chair

Those parts of the STED that incorporated modified language were discussed and further minor changes incorporated. The new text was agreed and will be submitted to the Steering Committee for endorsement as a Final Document with a copy sent to SG1.

Action: Chair/Secretary

The subject of 'change control' was discussed. It will be bookmarked for consideration when SG1 guidance on Conformity Assessment is revised. A short paragraph has been added to the document in the section on the use of the STED referring to this future work.

Action: Secretary

The notice concerning the discrepancy between guidance given in the STED and in *Principles of Conformity Assessment for Medical Devices* was discussed. It was agreed that its second paragraph should be modified.

Action: Chair/Secretary

8   SG1 IVD Medical Devices Subgroup: Advancement of guidelines as Final Documents – *Nancy Shadeed*

Prior to the meeting two documents from the IVD sub-group had been circulated to SG1 for comment. These were SG1(PD)/N045 *Principles of In Vitro Diagnostic (IVD) Medical Devices Classification of November 8, 2007;* and SG1(PD)/N046 *Principles of Conformity Assessment for In Vitro Diagnostic (IVD) Medical Devices of November 8, 2008.*

Nancy Shadeed described the process whereby the IVDD sub-group had resolved the comments received on the previous versions of these two documents. This has led to the documents being modified.

No further comments had been received from SG1 and it was agreed that both documents should be sent to the Steering Committee for endorsement as Final Documents.

Action: Chair/Secretary

The Chair congratulated the sub-group on their work.

It was reported that good progress had been made on writing a guidance document entitled *Summary Technical Documentation for Demonstrating Conformity to the Essential Principles of Safety and Performance of IVD Medical Devices.*

9   SG1(WD)/N065R3 Registration of Manufacturers and Listing of Medical Devices.

SG1 continued the discussion that started during the inter-SG meeting earlier in the week. The document was modified and drafting notes provided where issues remain unresolved.

Progressing this document is a first priority.

The modified text will be circulated for comment to SG1 and, subsequently, to the Chairs of the other SGs. SG1 members are encouraged to consult colleagues within their organizations before they respond.

Action: Secretary

10   Revision of SG1-N41R9:2005 *Essential Principles of Safety & Performance of Medical Devices*

Discussion of this item was deferred to the next meeting.

11   Report from the Asian Harmonization Working Party

Daphne Yeh updated the meeting on progress of the AHWP since SG1 last met in Washington and referred to some subjects that will be addressed in the future.   She answered questions raised by SG1 members.

The Chair thanked Daphne for her presentation.

12   Study Group 1 Communications Database

The Secretary reported on the status of the Communications Database. He will circulate the latest version to SG1.

Action: Secretary

13   New GHTF Website: "Study Group 1 (SG1) - Premarket Evaluation" – Is this the sole focus of SG1? Preparation of a recommendation for the GHTF Secretariat.

The meeting agreed that the description of SG1's responsibilities that appeared on the revised website was out of date and should be updated. It noted that the equivalent text for SG5 was much better. Maybe the phrase "market access aspects of a regulatory scheme" should be incorporated.

A new text will be prepared.

Action: Chair

14   Document Priorities and Timetable

 Six SG1 documents are posted on the GHTF web site as Final Documents:

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- SG1/N012 *Role of Standards in the Assessment of Medical Devices* (18 November 1999)
- SG1/N29:2005 *Information Document Concerning the Definition of the Term "Medical Device"*
- SG1/N41:2005 *Essential Principles of Safety and Performance of Medical Devices*
- SG1/N43:2005 *Labelling for Medical Devices*
- SG1/N015:2006 *Principles of Medical Devices Classification*
- SG1/N040:2006 *Principles of Conformity Assessment for Medical Devices*

Work in progress is as follows:

DOCUMENT TITLE	REFERENCE	STATUS in FEB 2008	PRIORITY	TARGET FOR COMPLETION
Study Group 1				
Summary Technical Documentation for Demonstrating Conformity to the Essential Principles for Safety and Performance of Medical Devices (STED)	SG1/N011	Proposed Final Document completed and will be forwarded to the Steering Committee for endorsement.	1	Final Document 2008 / Q2
Role of Standards in the Assessment of Medical Devices - Revision of SG1/N012	SG1/N044	Proposed Final Document completed and will be forwarded to the Steering Committee for endorsement.	1	Final Document 2008/ Q2
Definitions of the Terms Manufacturer, Authorised Representative, Distributor and Importer.	SG1/N055	Proposed Document completed and will be forwarded to the Steering Committee for endorsement and public comment.	1	Proposed document 2008/Q3
Registration of manufacturers and their medical devices by the Regulatory Authority	SG1/N065	Working Draft will be circulated to SG Chairs and SG1 for comment.	2	Proposed Document 2008/Q4
Final Documents for Revision				

Essential Principles of Safety and Performance of Medical Devices	GHTF/SG1/N 041:2005	Comments received and circulated to SG1. Will be considered at next meeting.	3	Proposed Document 2009/Q2
Information Document Concerning the Definition of the Term "Medical Device"	GHTF/SG1/N 29:2005	Call for comments & suggested changes will be made during 2008/Q2	4	Proposed Document 2009/Q3
Labelling for Medical Devices	GHTF/SG1/N 43:2005	Call for comments & suggested changes will be made during 2008/Q2	4	Proposed Document 2009/Q3
IVD Medical Devices Subgroup				
Principles of Classification of In Vitro Diagnostic Medical Devices	SG1/N045	Proposed Final Document completed and will be forwarded to the Steering Committee for endorsement.	1	Final document 2008 / Q2
Principles of Conformity Assessment for In Vitro Diagnostic Medical Devices	SG1/N046	Proposed Final Document completed and will be forwarded to the Steering Committee for endorsement.	1	Final document 2008 / Q2
Summary Technical Documentation for Demonstrating Conformity to the Essential Principles of Safety and Performance of IVD Medical Devices.	SG1/N063	Working Draft in preparation.	2	Proposed Document 2008/Q4

15 Any Other Business

The Chair has been approached regarding the provision of speakers for a seminar on the STED. She had declined to support it "officially". The Steering committee will be asked for guidance on this topic.

Action: Chair

16 Date and place of next meeting

- Buenos Aires, Argentina, from July 8 to 11th, 2008.

- Ottawa from 14th to 17th October for a joint Study Group meeting – to be confirmed.
Action: Chair / Nancy Shadeed

- Possibly Shanghai February/March, 2009 at the invitation of Siemens – to be confirmed. (alternatively, Australia at the invitation of J&J)

Action: Chair

- Toronto in May 2009 for the next GHTF Conference and a joint Study Group meeting – to be confirmed.

Action: Chair

- Brussels in October, 2009 – to be confirmed

SUMMARY OF ACTIONS

For the Chair

- To provide a response to the Chair of the ad hoc WG on software regarding the recommendations to SG1.

- To describe to the Steering Committee the changes to the text of its proposed Final Document *Role of Standards in the Assessment of Medical Devices.*

- To prepare a new text regarding SG1's responsibilities for the GHTF website.

- To ask the Steering Committee for guidance in responding to requests from commercial organisations for the provision of speakers at seminars that discuss new GHTF guidance documents.

For the Secretary

- To update *Status of Active GHTF Study Group Work Programme* (SG1/NO34) and SG1 Work Plan before the next meeting and reissue to members.

- To copy SG1's communications database to SG1.

- A new draft of SG1's guidance on 'Registration and Listing' will be circulated to SG1 and to other SG Chairs, together with a 'comments template'.

- To forward *Definitions of the Terms Manufacturer, Authorised Representative, Distributor and Importer* to other SG Chairs and, if no major objection, to the Steering Committee for endorsement as a Proposed Document for public comment.

For the Chair and Secretary

- To prepare and forward the following proposed Final Documents to the Steering Committee for endorsement:-

    Summary Technical Documentation for Demonstrating Conformity to the Essential Principles for Safety and Performance of Medical Devices (STED);

    Role of Standards in the Assessment of Medical Devices;

    Principles of Classification of In Vitro Diagnostic Medical Devices;

    Principles of Conformity Assessment for In Vitro Diagnostic Medical Devices.

For Nancy Shadeed

- To liaise with Tim Missios, from Boston Scientific regarding the invitation for SG1 to meet in Buenos Aires in May/June 2008 and confirm arrangements to SG1.

- To clarify dates for proposed meetings in Canada.

All Members of SG1

- To provide comments on guidance on Registration and Listing

- To brief relevant Steering Committee members of upcoming SG1 Final and Proposed documents.

Recommendations from the GHTF ad hoc WG on Software

Brian Fitzgerald, Chair of the Software Ad Hoc Group presented the following 12 recommendations to the GHTF Steering Committee.

For SG1

Recommendation #1: Please provide either a supplementary clause or a more inclusive text to Essential Principle 5.12 which will relate to standalone software since under the current text standalone software may not be covered because there is no "…energy source."

Rationale: The definition of "device" in many jurisdictions already contemplates standalone software, and while the system in which the standalone software is installed may have potential for energy transfer hazards the entirety of hazards arising from defective software are not limited to those mitigated by conformance to the sub clauses of 5.12.

The Steering Committee supported this recommendation.

Recommendation #2: Please replace the language used in Essential Principle 5.12.1 with elements of the draft language to be used in the new MDD.

The current text reads:

5.12.1 Devices incorporating electronic programmable systems, including software, should be designed to ensure the repeatability, reliability and performance of these systems according to the intended use. In the event of a single fault condition in the system, appropriate means should be adopted to eliminate or reduce as far as practicable and appropriate consequent risks.

The recommended text should mirror, as far as possible, the text proposed in the forthcoming revised European medical directive:

5.12.1b For devices which incorporate software or which are medical software in themselves, the software must be validated according to the state of the art taking into account the principles of development lifecycle, risk management, validation and verification.

Rationale: The reference to "…repeatability, reliability and performance of these systems according to their intended use" has little practical use where software is concerned since even defective software is perfectly repeatable and reliable though it may not perform as intended. The proposed new language may be directly coupled to published consensus standards which represent the current acknowledged state of the art.

Note: Proposed amendment 22 (October 10, 2006) of the proposed MDD draft text now reads; *12.1a. For devices which incorporate software, the software must be*

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validated according to the state of the art taking into account the principles of development lifecycle, risk management, validation and verification.

The Steering Committee decided that will need to consider further to ensure that the recommendation is not detrimental to harmonization.

Recommendation #3: Please clarify the definition of "software" by defining several related terms (embedded, standalone, installable, programmable, configurable, system, accessory, firmware, off the shelf, etc.).

Rationale: The way in which the *Essential Principles* and other related guidance are applied may relate to the context of the software's environment, its use, its maintenance and provenance and therefore these definitions need to be settled.

Action Item: The Steering Committee asked the Software Ad Hoc Group develop the clarification and then pass off to Study Group 1.

Recommendation #4: In the *STED* guidance clause 7.2.4 please include a reference to software referring to *Essential Principle* 5.9.1 and 5.9.2 which highlight the need for documentation and assessment relating to the possible negative interactions between software and other influences, hardware, EMC, language, etc. in its use environment .

Rationale: This has special significance for standalone software in that the manufacturer of such software may not be able to know the explicit properties of the particular hardware platform in which the software will eventually be installed. Therefore there should be, to the greatest extent possible, the provision of a detailed generic specification of the hardware platform 'envelope' which the software manufacturer has considered in the software design and links between this hardware performance envelope and the results of the manufacturers software verification activities.

The Steering Committee referred this recommendation to Study Group 1.

For SG2

Recommendation #5: Please supplement the examples provided and clarify the requirements in various documents under the study group's control for which affected parties should undertake adverse event reporting, particularly with regard to networking scenarios. The Software Ad-hoc team can assist in this task if necessary.

Rationale: The devices may each be working as intended according to the manufacturer's specification but when linked together they may cause the hazardous situation (example; lack of timing synchronization, Bluetooth bit error rate failure, unmatched security controls, etc). The regulatory burden of reporting device failures should also fall on those who observe installed system failures to properly capture the root causes of individual device failures.

Action Item: The Steering Committee asked Mr. Ishikawa and Study Group 2 to take the lead on this recommendation.

For SG3

Recommendation #6: The Ad Hoc group recommends that it be converted into a task group and located under Study Group 3, at Study Group 3's request, so it may freely move between and assist other study groups and act as a resource, as needed. This task group would implement any current recommendation which may be accepted by the Steering Committee and Study Groups.

Rationale: These activities are cross-cutting through many technical domains and study groups and it is important to maintain consistency in approach and membership. An on-line working environment has been established in which the membership can communicate and share documents asynchronously when required. This private web-portal can increase the throughput of the Ad Hoc deliberations and provide speedier resolutions of issues, without having to rely on physical meetings. The software group feels that it should minimize the risk of being seen as another autonomous Study Group and by acting under the auspices of SG3 it should be provided sufficient structure while active.

The Steering Committee decided to maintain the Software Ad Hoc as an Ad Hoc Group and review the progress next year prior to making a decision to make it a Subgroup of a Study Group.

Recommendation #7: The Ad Hoc group recommends that SG3/N17R3 now begin to make reference to procurement of software and outsourcing of software.

Rationale: These functions are critical for the proper inclusion of product and process controls in outsourced software development and the use environment for both standalone software and software which is a component of a medical device.

The Steering Committee agreed to this recommendation.

Recommendation #8: Please make reference to software controlled processes in SG3/N99-10 and remove the software exception currently in place. Make it clear that process validation applies to software design activities. Reference to software validation activities and the appropriate standards can be included.

Rationale: It is critical for proper manufacturing process validation, where software controlled processes are present, that the extent of software validation be defined and documented. Software Quality Assurance controls should exist both in device design and device manufacturing. The proposed text of the new European MDD now contemplates software validation, software verification and software lifecycle activities.

The Steering Committee agreed to this recommendation and asked Study Group 3 to undertake it.

For SG 4

Recommendation #9: The Ad Hoc Group recommends that a software specific quality audit document be developed. The scope of the software audit process should be focused on both design side QMS aspects and product integrity.

Rationale: The current document cannot be easily "scaled" to software audits and the Industry Standard processes for Software Quality Assurance rely on a discrete subset of the elements covered by the current document, (e.g less reliance on verification). Published standards, specifically IEC 62304, now provide a basis for such an improved audit approach.

The Steering Committee decided this recommendation should be referred to Study Group 4 to deal with after their current work priorities.

For SG5

Recommendation #10: The Ad Hoc Group recommends that the software which autonomously controls therapy delivery and/or autonomously performs diagnosis may, in certain circumstances, require clinical evidence as part of its validation.

Rationale: It may be relatively rare but when closed loop software is, or controls, a medical device it could require clinical evaluation to validate it.

Action Item: The Steering Committee asked the Software Ad Hoc Group to discuss this recommendation with Study Group 1 prior to the Steering Committee deciding on this recommendation because the Steering Committee needs more information.

For All Relevant SGs

Recommendation #11: Please provide consideration, clarification, definitions and guidance for medical software that is not a device but which, as an accessory to a device or its patient related data, may be regulated as a device.

Rationale: A class of medical software is emerging which may not meet the definition of a traditional device itself but which may be an accessory to a device, or may manage devices through clinical workflow management. This area may not be covered by every jurisdiction's medical device regulations but an increasing number of jurisdictions are placing controls on these activities. Emerging standards in this area may complement GHTF activities undertaken here.

Action Item: The Steering Committee asked the Ad Hoc Group to refine the recommendation because the direction was unclear. They asked the Ad Hoc Group to highlight examples.

For SGs 3 & 4

Recommendation #12: The Ad Hoc Group asked the Steering Committee to direct SG3 and SG4 to jointly decide whether GHTF should develop a guidance for regulatory criteria for software audit, complementary to the requested Software quality audit document, or refer it to ISO/IEC for TC210 for a standards activity.

Rationale: This would be a complementary criteria document (checklist) to the process centric audit methodology in recommendation #9.

The Steering Committee noted that they would raise this recommendation with Study Groups 3 and 4 later in the day.