2012 APEC-AHC-AHWP Joint Workshop on Medical Device Combination Products

REGULATORY FRAMEWORK FOR MEDICAL DEVICES CONTAINING MEDICINAL PRODUCTS

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Scope

- Regulations in Singapore
  - Product Classification
  - Pre-market Overview
  - Post-market Controls
- Similarities/Differences from other countries
- ASEAN updates

Medical Device Combinations

- Combination of two or more health products from different categories in a single product to achieve the intended purpose.
  - **Medical Device + Drugs**

    e.g. Sirolimus eluting Stent, Pre-filled Syringe containing insulin
  - **Medical Device + Biologics**

    e.g. Bone void fillers containing Bone morphogenic protein
  - **Cell Tissue Therapy Products + Medical Device**

    e.g. Membrane patch containing Duramater cells for use in spinal/ neurosurgery

Why combine?

- Extend the lifecycle of off-patent medicinal products
- Improve the effectiveness of medical devices by adding medicinal substances
- Generating new market value for current products that will soon lose patent
- Consumer interest in localized drug delivery - improved therapeutic effectiveness

General Scope

- A product comprised of a medical device and one or more health product(s) (e.g. Drug, biologics) that are combined together and produced as a single entity;

  (e.g. Drug eluting stents, Pre-filled syringes with medicinal products)

- A medical device and one or more health product(s) supplied together but as distinct entities and intended to be combined at the point of administration or used together to achieve a common intended purpose

  (e.g. Hemostatic device & Thrombin, Insulin pen & Insulin)

- A medical device and one or more health product(s) supplied together but as distinct entities although **not** intended to be combined at the point of administration or used together

  (e.g. Procedure packs, First aid kits with lidocaine vials)

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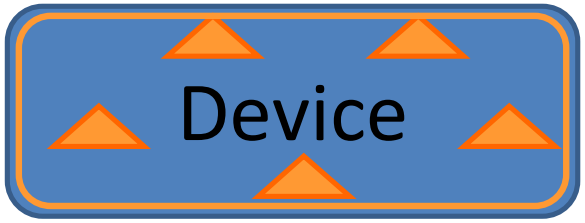
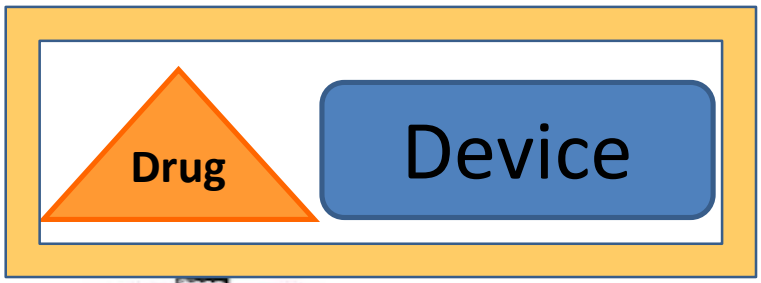
Understanding the Possibilities



• Combined together as a single entity

e.g. Drug eluting stents
Drug in Pre-filled syringes



• Supplied together BUT
• Used individually AND
•No common intended purpose
e.g. First aid kit with Drug

• Supplied together AND
• Combined together at point of administration OR
• Used together for a common intended purpose
e.g. Hemostat device & Thrombin

Regulatory Control

Combination of Device and Drug include

- Two Constituent Components
- Two Modes of Action

MODE OF ACTION

- Identify the PRIMARY and ANCILLARY Mode of Action

  Primary Mode of Action (PMOA) → makes the greatest contribution to the overall intended therapeutic purpose of the product

  Ancillary Mode of Action → plays a supporting role in the overall intended therapeutic purpose of the product

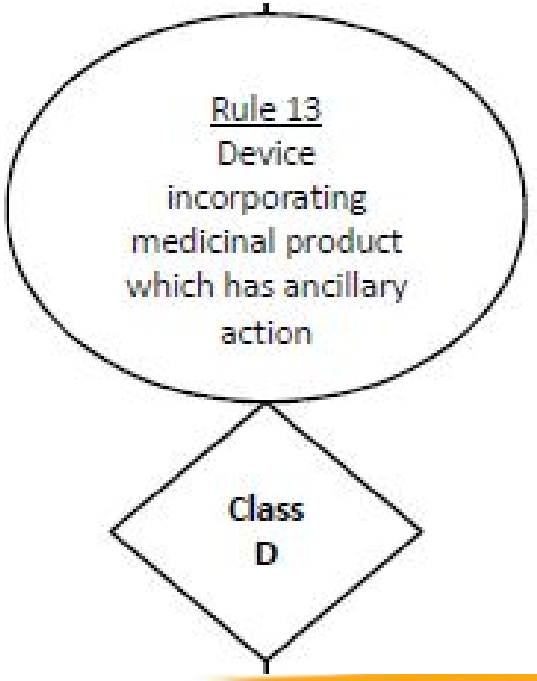
PMOA determines the regulatory control applicable to the product.

Risk Classification

- **Class D Medical Device**

  - Rule 13 of *GN-15 Guidance on Risk Classification of General Medical Devices*

  - Devices incorporating a medicinal product



Evaluation Routes

- Two Routes of Evaluation

1. ABRIDGED – *applicable only if*

(i)Product is approved as medical device in one Reference Agency*
and
(ii)the drug or biologics component evaluated and approved by at least one competent drug regulatory agency, as defined by the WHO

2. FULL - *For all devices that do not qualify for abridged route*

Reference agencies (GHTF Founding Members):





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Combination – the challenges

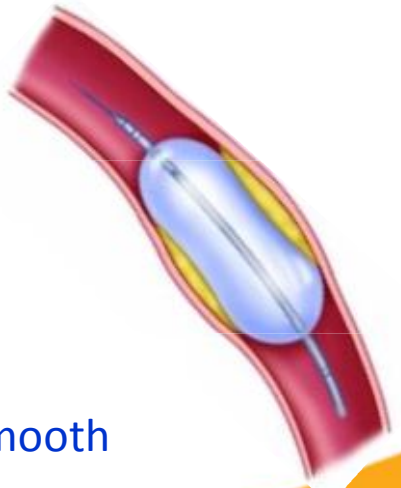
A well-established medicinal product coated on an approved medical device

The intended use and/or indications of a medicinal product incorporated in a medical device may differ from its approved use as a medicinal product by itself.

Paclitaxel
Cancer Chemotherapy

+

PTCA Balloon Catheter



COMBINATION

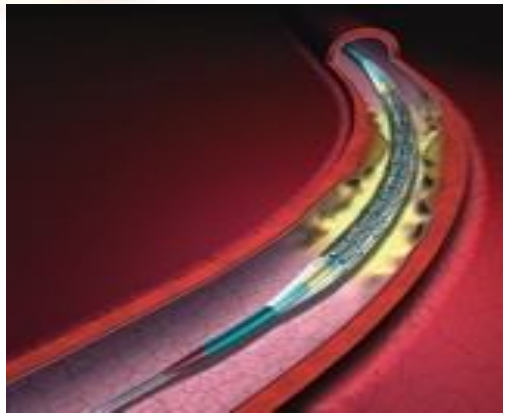
Paclitaxel-coated PTCA Catheter

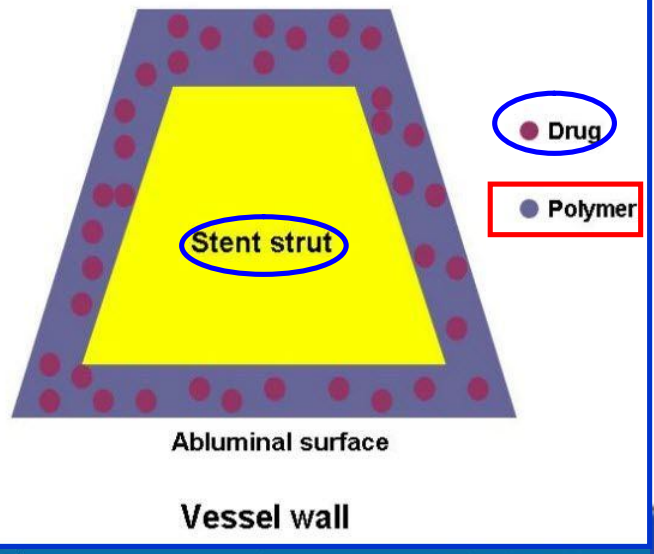
Paclitaxel intended to prevent proliferation of Smooth muscle cells in Vascular tissue

Intended Use and Indications Differ

Combination – concerns

Source: http://www.ptca.org/des.html





- Presence of a polymer coating system – a matrix that assists coating of the medicinal product to the stent surface
  - Compatibility issues
  - Mechanical attributes
  - Stability
- Non-conventional release profile of the medicinal product
  - Local release vs. systemic effect
- Synergistic effects of the components put together in the combination
- New route of administration and new delivery system

Post-market System

Advantages

- Identifying the risks and hazards associated with a medical device
- An effective form of regulatory oversight in the absence of pre-market approvals or product registration system
- *Enables timely intervention by Regulatory Authority to safeguard public health*

Important Learning Points

•All medical devices possesses inherent risk, regardless of risk class

•Limitations of premarketing assessment in terms of long-term safety & effectiveness

Post-market Controls

Post-Market **VIGILANCE**

Reporting and investigation of adverse events and field safety corrective actions

- ❑ Mandatory reporting by Registrants & Dealers
- ❑ Voluntary reporting by Healthcare professionals & consumers

Post-Market
SURVEILLANCE

Pro-active collection of information on quality, safety or performance of medical devices after they have been placed in the market.

- ❑ Active Environmental Scanning
  - Subscription to overseas alerts from overseas regulatory authorities
  - Review overseas Field Safety Notice publications

Singapore MD Regulatory Framework

FDA		CE		厚生労働省 Ministry of Health, Labour and Welfare
Lead Agency for review – based on Primary Mode of Action Pre-market Review and Requirements - FDA guidance documents	Regulation of combinations based on main function/purpose Grouping for Device Licence (Single, Family, Group, Group Family, System & Test Kit)	Risk Classification system for Medical Devices Essential Requirements Checklist for Medical Devices	Risk Classification system for Medical Devices Post-market – Recall and Adverse Event reporting Essential Requirements Checklist for Medical Devices	Regulation of combinations based on main function/purpose Use of Standards in Pre-market review

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Medical Device Product Working Group (ASEAN ACCSQ-MDPWG)

Formed in 2005 by Medical Device Regulators in ASEAN

- Chair: Malaysia
- Co-Chair: Singapore

10 Member States:

- Brunei Darussalam
- Cambodia
- Indonesia
- Laos PDR
- Malaysia
- Myanmar
- Philippines
- Singapore
- Thailand
- Vietnam

Objective:

To implement specific measures on medical device under the roadmap for healthcare integration, in-line with the establishment of the ASEAN Economic Community (AEC) by the year 2020 and fast- track integration of the 11 priority sectors (including healthcare sector).

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ACCSQ MDPWG Agenda

rmonised Regulatory Framework:ASEAN MEDICAL DEVICE DIRECTIVE (AMDD)

Harmonised pre-market submission format: Adoption of ASEAN CSDT

HARMONISATION

rmonised set of voluntary medical device standards in ASEAN

Sharing of post-market safety information among ASEAN Member States

Thank You

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