MEDTECH & PHARMA
PLATFORM

Position paper on the legislative framework for Connected Combined Products

Working Group on Connected Combined Products, Medtech & Pharma Platform, 21 Oct 2020

Connected combined products (CCP) are at the forefront of medical innovation and their role in healthcare is set to become even more prominent thanks to the fast pace of scientific and technological progress. In addition, technology companies are now entering the healthcare field traditionally occupied by pharmaceutical and medical devices companies. CCPs comprise of pharmaceutical and medtech (including medical device software (MDSW)) components and are therefore regulated by different legislations.

CCPs contribute to the field of personalized and precision medicines, which offer important benefits for patients and society. These benefits include a better quality of life and greater safety and efficacy through more timely and targeted treatments. In addition, these innovative treatments are likely to result in reduced healthcare spending. To realize these benefits requires incorporating components that are highly regulated due to a direct therapeutic effect, with components targeting general health, wellness and motivation.

The new Medical Devices Regulation (MDR, 2017/745) and the *In Vitro* Diagnostics Regulation (IVDR, 2017/746) address the regulatory framework for single integral drug-device combination products (DDCs) classified as drugs under Article 117 of MDR and companion diagnostics (CDx) under Art 2(7) of IVDR, respectively. These Regulations however do not address the regulatory framework and the roles and responsibilities of different stakeholders when it comes to connected combined products that include medicinal products, medical devices and e/mHealth apps that are registered/CE-marked individually, which are used in a combined way for a medical purpose.

Challenges lie in proving efficacy and to be able to guarantee the right level of safety since within a system of a CCP, elements (hardware and software) could be added which from origin may have no medical intent, nor are they tested against relevant medical standards of complying to the latest medical Regulations and Directives. The individual CE markings of the components do not guarantee regulatory compliance of the complete CCP as a whole. The use of mobile platforms and mobile applications in all their variety can make a CCP very complex to validate.

In addition to cybersecurity, correct data transfer is of utmost importance for proper functioning of a CCP. If the data stream between CCP components gets distorted by, for instance, EMC (electromagnetic disturbance) or software failures and data gets lost, is incomplete or even more severe, gets changed, it could impact the dosing or adherence of a therapy, putting the patient at risk. It is essential to have guidance that describes responsibilities of involved companies for respective elements of the CCP to ensure safety and guarantee compliance.

MPP's position and proposals

The Medtech & Pharma Platform Association (MPP) members set up a Working Group on CCP advocating for a proportionate regulatory framework to respond to these challenges.

The MPP proposes the following definition for CCPs:

> *"A **connected combined product (CCP)** is considered the **combined use of a medicinal product** with two or more of the following products: (**delivery) device, in vitro diagnostic (IVD), standalone software, mobile platform, and/or a cloud application** with the aim to deliver a medicinal product to patients and/or to monitor certain data and parameters, such as medical adherence."*

A CCP could include but is not limited to one of the following options:

- a DDC and a standalone software used in a combined way for medical purpose or
- an individual medicinal product, a delivery device and a standalone software that are registered or CE-marked separately but used in a combined way for medical purpose.

While each component is being regulated by a different regulatory regime and subject to different stakeholders' oversight, their combined use as components of a CCP is characterized by a regulatory gap. There is need for a deeper level of cooperation between competent authorities responsible for medicinal products, those responsible for overseeing the conformity of medical devices, IVDs, standalone software, considering general data protection regulation (GDPR) and cybersecurity aspects.

Lifecycle management of software and technology solutions is far faster than device or drug changes. Frequent updates are needed for security and safety relevant issues, whilst software applications see rapid development as new features are added. This is particularly relevant with CCPs where the approach of regulatory authorities for oversight of medicinal products is different as the approaches proposed by those responsible for medical devices and MDSW in how to manage design controls and updating submission documents. Regulatory processes and guidance are needed on how to manage these changes in an efficient manner.

In addition, the question arises of how the CCP as a whole is treated, when elements of that system have different levels of safety and risk when it comes to treating the patient. Managing risks with an impact on a patient's therapy in the areas of cybersecurity, data privacy and data security require guidance from the regulators, especially on questions of liability, where different companies are providing different elements of the system.

The benefits and dynamic evolution of CCPs requires bridging existing regulatory fields and the roles and responsibilities within them. CCPs will require creating intersections between regulatory fields on pharmaceuticals, medical devices and IVDs, data management including protection and cybersecurity.

The current regulatory set up poses challenges that hinder the development of safe and efficacious innovative products, negatively impacting patient access such as:

- lack of defined interaction with interfaces of the CCP components (data protocols, data structures, use of medical validated components either software or hardware)
- lack of agreement of implementing watchdogs on several levels of software to identify system and component failures, (intended) misuse, amongst others
- lack of clinical data management of the complete CCP in cases where there is no delivery device upfront
- lack of standards of interface definitions that ensure efficacy, safety and compliance due to complexity of interfaces between the CCP components

Innovation is by nature fast paced. It is in conflict with the speed associated with developing regulatory instruments through a full legislative cycle, creating a permanent regulatory gap.

The MPP Working Group on CCP aims to facilitate dialogue between key stakeholders with a view to jointly develop robust and flexible regulatory instruments. These instruments can include best practices and guidelines that allows for a dynamic adaptation of the regulatory framework to promote innovation and maximize patient safety.

The MPP Working Group on CCP is currently working on a policy document that addresses challenges of regulating connected combined products, with a specific focus on the “connected” elements of a CCP. The MPP intends to share the CCP policy document with all relevant regulating bodies and actors at EU level with the aim to establish a constructive dialogue in order to find viable solutions to better regulate these products.

We are looking forward to working with relevant stakeholders creating a proportionate regulatory framework for connected combined products in Europe.

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About the Medtech & Pharma Platform Association

The Medtech & Pharma Platform Association (MPP) draws together companies from the pharmaceutical, medtech and ICT sectors and provides opportunities to exchange knowledge and collaborate in technology and regulatory areas related to combined products.

The MPP’s objectives are:

- To enhance synergies between the pharma, medtech and ICT industries
- To establish new collaboration models to ensure and accelerate market access for safe and innovative treatment options
- To support government and regulators in developing a balanced and proportionate regulatory and political framework for combined products including connected combined products

MPP member companies include: SFL Regulatory Affairs & Scientific Communication, Swiss Medtech, Ypsomed, Novartis, Merck Sharp & Dohme, Sanofi, anteris helvetia, Aquilon, Edwards Lifesciences, Philips Innovation Services, Covance, Boehringer Ingelheim.