IMPROVING PATIENTS' LIVES THROUGH PACKAGING

PRESENTING COLUMBUS AWARD WINNERS

February 2017
## CONTENTS

Introduction ........................................................................................................................................... 1

**Winners of Columbus Award for Commercially available products**

Olmesartan franchise - Daiichi-Sankyo - 2016 ................................................................................... 2

Cimzia - Rondo AG and UCB Pharma S.A. - 2015 .............................................................................. 3

Lynparza - AstraZeneca - 2014 ............................................................................................................ 4

Januvia - Merck and Burgopak - 2013 .................................................................................................. 5

Symbicort Turbuhaler - AstraZeneca - 2012 ....................................................................................... 6

Coartem - Novartis - 2011 .................................................................................................................. 7

**The future of interactive packaging** ................................................................................................. 9

PhutureMed™ Memo Solution - Palladio Group S.p.A. ........................................................................ 8

Care4Today® Connect Smart packaging - Janssen Pharma ................................................................. 10

Conclusions / contact ......................................................................................................................... 11
INTRODUCTION

The mission of HCPC Europe is to educate the healthcare sector in the improvement of patients’ compliance by promoting packaging that improves patients’ lives. One of HCPC Europe’s key objectives is to achieve demonstrable improvements in patients’ lives, as well as enhanced compliance and adherence to medication regimens by facilitating knowledge sharing in the area of patient-friendly pharmaceutical packaging.

The organisation runs an annual pack award, known as the Columbus Award, which seeks to award manufacturers who pay particular attention to patient friendly features when designing their packs. Carefully designed packaging can make a significant contribution to patient’s lives, including assistance with compliance (taking as prescribed), adherence (continuing to comply within your lifestyle) and persistence (taking the entire course of treatment).

Through elements such as printing, colour-coding and the format of the package itself, package designers can incorporate features to assist with ease of identification; clarity of instructions; clear differentiation of medicines and visible evidence of medication taken.

In this document you’ll find examples of packs that have won the Columbus Award or were a finalist. These serve as good examples of packaging that improves patients’ lives in a broad range of pharmaceutical products and packaging types. Also included is a brief summary about each pack and a list of key features.

We’ve seen many initiatives to create smart, intelligent or interactive packaging solutions throughout the years, but it seems the time is now ripe for these packs to finally reach the consumer market. That is why we also created a special section in this document about ‘The future of interactive packaging’ with examples from the Columbus Award 2016.

We invite all packaging designers/developers to submit their patient-friendly pack designs, either in development or already commercialised.

For more information about the Columbus Award, please visit our website: [www.hcpc-europe.org/columbus-award/call-for-entry/](http://www.hcpc-europe.org/columbus-award/call-for-entry/)
AWARD-WINNING PACKS

Winner of Columbus Award 2016 for Commercially available products
Brand name: Olmetec®, Olmetec Plus®, and Sevikar/HCT®
Brand owner: Daiichi-Sankyo
Presentation: Oral solid dose
Application: Hypertension
Dosing regimen: One tablet every day at the same time

The Olmesartan franchise of products (Olmetec®, Olmetec Plus®, and Sevikar/HCT®) now comes in a new Adherence Package. The 5 new features of the Adherence pack help make a difference in patients’ lives. Features include the top opening design, which provides patients with convenience and easy access to their medication. The intake timer and the weekdays printed on the blister reduce the risk of missing pills and the last blister reminder help prevents patients from running out of medication. The Digital Product Information via the QR-Code helps provide access to product information that patients can refer to for relevant information in an easy to read, legible format.

Key features
• Easy access
• Intake timer
• Last blister reminder
• Digital product information
• Instant weekday visibility
Winner of Columbus Award 2015 for Commercially available products
Brand name: Cimzia
Brand owner: UCB Pharma S.A.
Presentation: Injectable
Application: Rheumatoid arthritis
Dosing regimen: Injection every 2-4 weeks

Cimzia® (certolizumab pegol) is a tumor necrosis factor (TNF) blocker indicated for the treatment of adults with moderately to severely active rheumatoid arthritis (RA). In cooperation with UCB, Rondo worked on the development of a patient compliant packaging which can be easily handled by persons with RA. Most patients have difficulties in safely opening standard folding boxes. For what relates to packaging, the vision is to be the best in class provider of innovative or cutting edge packaging solutions to patients, and to deliver solutions inspired by actionable insights. UCB envision design, and deliver creative packaging solutions that connect to patients on a functional and emotional level. This packaging solution was successfully launched in EU and IMM countries where it is now used by UCB’s patients.

Key features
- Easy opening flap – important for RA patients
- Intuitive reclosing features
- Alternative opening mechanism
- Tamper-evident labels confer authenticity and integrity
- Redesigned leaflet for patient clarity
AWARD-WINNING PACKS

Winner of Columbus Award 2014 for Commercially available products
Brand name: Lynparza
Brand owner: AstraZeneca
Presentation: Oral solid dose
Application: Ovarian cancer
Dosing regimen: Multiple capsules twice a day

Olaparib is the first PARP inhibitor, the only oral maintenance therapy for BRCA mutated ovarian cancer patients providing breakthrough improvement in progression free survival. This product requires a very complex treatment and hence the best possible support for patients, particularly since the volume of capsules (per day / per pack) is potentially a negative issue for compliance.

AstraZeneca demonstrated the importance of working with patients, healthcare support workers and practice nurses here to develop a pack that would aid in the quest for compliance and adherence. This approach led to the development of the “capsule companion” which was designed completely from scratch for use by patients, as a refillable plastic carry case that can be refilled.

Key features
• Aiding patients to organise their medication
• Providing patients the ability to control their medication
• Provide reassurance, whilst discreet and portable
• Simplicity – ease of use and clear to operate
• Capsule companion
AWARD-WINNING PACKS

JANUVIA
MERCK AND BURGOPAK

Winner of Columbus Award 2013 for Commercially available products

Brand name: Januvia
Brand owner: Merck
Presentation: Oral solid dose
Application: Type 2 Diabetes Mellitus
Dosing regimen: One tablet every day

Januvia tablets 100mg are used to treat Type 2 Diabetes Mellitus (T2DM), also known as non-insulin-dependent diabetes. T2DM is a disease characterised by high blood sugar levels that are difficult to control (poor glycaemic control) due to chronic damage to the beta cells of the pancreas and loss of their normal function, which is the production of insulin in response to increase in blood glucose, such as following a meal.

Merck's Januvia is the first product to be launched in Burgopak's F=1 child resistant design. The pack effectively stops children accessing the medication whilst prompting compliance through easy access to the foil blister, whilst delivering a calendarized format and keeping medication and carton connected.

Key features
- Medication remains with carton
- Easy opening mechanism, whilst achieving CR
- Instructions stay with medication
- Small, easily portable format
AWARD-WINNING PACKS

**Winner of Columbus Award 2012 for Commercially available products**

Brand name: Symbicort

Brand owner: AstraZeneca

Presentation: Inhaler

Application: Asthma or COPD

Dosing regimen: As required

Symbicort contains a combination of budesonide and formoterol. Budesonide is a steroid that reduces inflammation in the body. Formoterol is a bronchodilator that relaxes muscles in the airways to improve breathing. Symbicort is used to prevent bronchospasm in people with asthma or chronic obstructive pulmonary disease (COPD). The project team set out to improve the patients understanding of the Turbuhaler device and Symbicort medication, and in turn, lead to better compliance and a reduction in mis-dosings. This was achieved by presenting and reinforcing the instructions at each touch point (doctor, pharmacy and at home) and simplifying the instructions using simpler language. The instruction became “twist, click, inhale” and presented on a leaflet, carton, starter booklet and web page. The starter pack was designed to be engaging and something the patient may keep. The outer packaging was designed by Burgopak.

**Key features**

- Simple dosing instructions
- Carry case
- Starter pack
- Renewed branding and imagery
- Patients to organise their medication
AWARD-WINNING PACKS

Winner of Columbus Award 2011 for Commercially available products
Brand name: Coartem
Brand owner: Novartis
Presentation: Oral solid dose
Application: Malaria
Dosing regimen: 3-day course of two tablets per day

Coartem (artemether and lumefantrine) tablets are indicated for treatment of acute, uncomplicated malaria infections due to Plasmodium falciparum in patients of 5 kg bodyweight and above. Coartem Tablets have been shown to be effective in geographical regions where resistance to chloroquine has been reported.

Novartis worked hard on this pack, which was especially designed to promote and help compliance in malaria treatment. The packaging enhances the dialogue between healthcare provider and patient. Pictorial and colour coded packs explain not only how but also why to be compliant with the 3-day course of therapy; Decreasing parasite count following each dose. Thanks to a unique public-private agreement with WHO Novartis makes Coartem available at cost.

Key features for this pack include
- Simple dosing instructions
- Pictures and colours to enhance dosing regimen
- Aimed at areas of low literacy (use of imagery to explain regimen and need to remain adherent)
THE FUTURE OF INTERACTIVE PACKAGING

**Introduction:** The ongoing evolution of demographic trends, the consequent modification of the population’s health needs, and an increasing proportion of elderly with chronic conditions, require a structural and organizational redesign of the service network, especially in order to strengthen the local assistance.

Technological innovation can contribute to a reorganization of health care, in particular by supporting the shift of health care from the hospital to the home area.

**Background:** According to the U.S. Centers for Disease Control and Prevention (CDC), approximately 20% to 30% of the prescribed medications are never filled. The chronic under-use of medications is one of the most common forms of non-adherence. According to the CDC, the non-adherence of drug therapy causes 30% to 50% of treatment failures and leads to 125,000 deaths annually.

New technological innovations mean the packaging world can go further and further in increasing the interaction between the patient and the product. Recently, we have seen built-in electronics in packaging to enhance the experience of the end-user. Will these developments one day be the standard for all packaging?

**Why Smart Packaging?** Smart packaging, which often involves the printing of conductive circuits right on the packaging substrate, are now approaching the Healthcare industry. The secondary packaging ie. folding boxes, have become “intelligent”. The therapy can be recorded once the drug is removed from its packaging, and by definition the patient compliance to therapies can be monitored.

“How it will bring improvements in the life of patients”
AWARD-WINNING PACKS

Winner of Columbus Award 2016 for Concepts
Concept name: PhutureMed™ Memo Solution
Brand owner: Palladio Group S.p.A.
Application: Memory aid and therapy adherence support

The Memo Solution is an advanced packaging system, conceived by Palladio Group S.p.A., developed together with E Ink. It supports a number of features to monitor the quality of medicines shipped to patients and improve medication adherence to prescribed drug therapies. For example, it can provide a time stamp that record the real time of the last open event, and a warning message in case the item has exposed a pre-defined temperature range. With both RTC timer and temperature sensor in one integrated design, not only does the solution help to improve the efficiency for clinical trial, it also helps to reduce waste in the supply chain for identifying the compromised product at any given time.

Key features
• E Ink display
• Printed electronic circuit
• Time stamp recorder
• Temperature sensor
AWARD-WINNING PACKS

Finalist in Columbus Award 2016 for Concepts

Concept name: Care4Today® Connect Smart packaging
Brand owner: Janssen Pharma
Application: Memory aid and therapy adherence support

Care4Today® Connect Smart packaging is an integrated solution Janssen Pharma developed to improve patient and clinical outcomes through improvement of patient adherence to prescribed therapy regimen.

The smart packaging solution integrates electronics in primary/secondary packaging to capture the exact time and date stamp of pill removal. Using near field Communication (NFC) the data is transferred via a mobile reminder app to central database allowing patients, caregivers and healthcare professionals to manage and support therapy adherence with the objective to improve patient outcomes.

Key features
- Printed electronic sensors and circuit
- NFC communication
- Mobile reminder app
CONCLUSIONS

Innovative packaging solutions help patients to take their medicine in an effective way that fits their lifestyle and improves their lives. There is now a significant library of products that have won awards in the compliance, adherence and patient-friendly arena and it will continue to grow. By seeking out and understanding these packs and what makes them provide benefit both to the patient and also the brand owner, pack designers can use best practice on new packs, and therefore significantly improve the lives of patients globally.

We applaud the drive to put patients first, and design packs for patients, with patients, and advise that you seek further detail by visiting the website of HCPC Europe:

www.hcpc-europe.org