

CROSS-INDUSTRY ORGANIZATIONS

The Inhalation Drug Delivery Association (IDDA) China

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On behalf of the IDDA

Asthma and COPD in China

In China, there are multiple, major causes for human respiratory diseases. These include high population in cities, large numbers of people who smoke, use of motor vehicles, rapid industrial expansion and worsening environmental pollution. China's 27 provinces and four municipalities have a total population of 1.37 billion. There were more than 32 million asthma patients in 2016 and the incidence of asthma in the total population has been increasing at a rate of 4% per year. Among young persons below 14 years of age, 3.7% suffer of asthma. The incidence of COPD is very high in China, with more than 80 million patients in 2016. The percentage of the population suffering from COPD is 14% for persons over 40 years of age and 8% for those over 28 years of age.

Due to the continuous increase in asthma and COPD disease, there has been an average growth in drug treatment of more than 20% for the past five years. The total inhaled drug market in China was approximately \$1.6 billion USD in 2015. Products from GSK, AstraZeneca, Boehringer Ingelheim and other international pharmaceutical companies account for 90% of the total market. In addition, more local pharmaceutical companies are becoming involved in the area.

In the regulatory field, the China Food and Drug Administration (CFDA) issued a new regulation in 2016, requiring a linked filing registration for drug packaging, excipients and drug products. It is expected this will pose a major challenge for local Chinese companies.

Founding of the IDDA

In order to promote research and development of inhaled products, improve inhalation technology and inhalation product standards in China, the Inhalation Drug Delivery Association (IDDA) was founded in November 2013 in Nanjing, China. Members of the alliance include people working in inhalation drug research and development, quality monitoring, production enterprises, colleges, universities and institutes. The IDDA follows the drug laws and regulations issued by the Chinese government and aims to improve the capabilities of the Chinese inhalation drug industry by promoting and following globally accepted standards in the Chinese inhalation drug industry and clinics.

Recent activities

Since 2013, the IDDA has successfully organized three conferences covering topics related to inhalation technology. It has also assisted in the translation into Mandarin and publication of the book *Good Cascade Impactor Practices, AIM and EDA for Orally Inhaled Products*. In addition, the IDDA is maintaining its cooperative communication with the China Food and Drug Administration Center for Drug Evaluation (CFDA CDE) and the Chinese Pharmacopoeia Commission to promote inhaled drug regulation and quality requirements for international standards.

In China, nebulizers are a popular method for administering asthma and COPD treatments. The IDDA recently completed a study of budesonide and salbutamol drug products as model drugs with various types of nebulizers. Preliminary results were presented by Dr. Jian Wang at the

IDDA Conference 2016. More than 200 Chinese delegates attended the conference, with invited speakers from the UK, US and Canada, as well as China.

Future plans

The IDDA intends to organize teams of experts to improve inhalation drugs, quality control, equipment selection, characteristics of drugs and drug compliance in patients. It also plans to share information with clinical physicians about various available formulations, advantages and disadvantages of different inhaled technologies, and the correct use of inhalers by patients. Through these communications, the IDDA hopes to reach consensus on clinical research, improve regulations and promote the continuing development of the inhalation product industry in China.

Major plans for 2017 include:

- Participation in the China Association of Chest Physicians 2017 Conference to be held in Chengdu, China, June 22-25, 2017.
- Assisting in organizing the Inhalation Asia 2017 Conference to be held in Hong Kong, September 13-15, 2017.
- Organizing a seminar focusing on bioequivalence studies for inhalation products.

Further details will become available on the IDDA website: www.idda.pharmadl.com

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