# Expanding Utilization of Real-World Evidence (RWE)

Hui Huang, PhD MBA
Takeda Pharmaceutical Company Limited, Cambridge, MA 02420, USA
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*The 8th new drug development symposium, Tokyo, Japan*

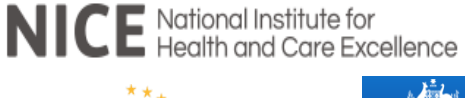
# Who uses RWE in the past?































# Is it a “Sea-change” coming for Regulatory?

- US: FDA has mandates for exploring the use of RWE within the regulatory framework

## Prescription Drug User Fee Act VI

- Requires FDA to enhance use of RWE for use in regulatory decision-making
- FDA must:
  - Hold a public workshop with key stakeholders (e.g., patients, industry, academia) by the end of 2018
  - Initiate (or fund) activities (e.g., pilot studies or methodology development projects) aimed at addressing key concerns and considerations in the use of RWE by the end of 2019
  - Issue draft guidance by the end of 2021

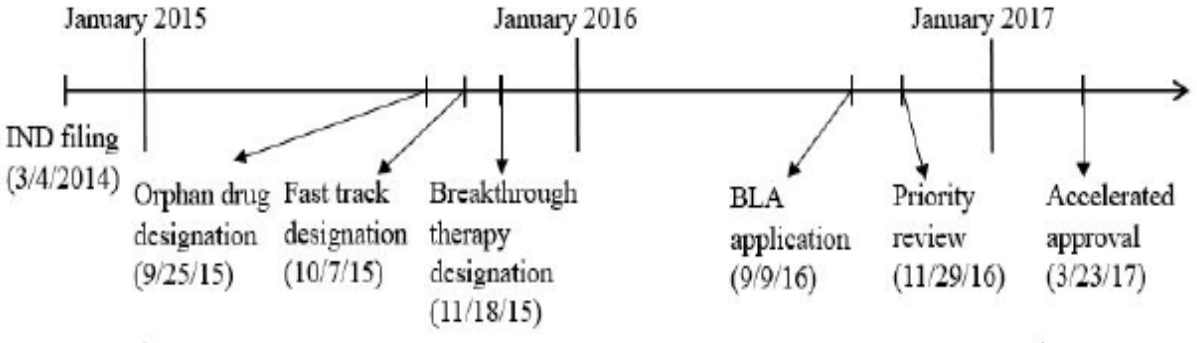
## 21st Century Cures Act

- Requires FDA to establish a program to evaluate the potential use of RWE to:
  - Help support the approval of new indications for an approved drug
  - Help support or satisfy post approval study requirements
- FDA must issue:
  - A draft framework for this program by the end of 2018
  - Draft guidance by the end of 2021

*Daniel G., FDA workshop presentation in 2017: https://healthpolicy.duke.edu/sites/default/files/atoms/files/rwe_fda_slide_deck_2017_09_13.pdf*

# Utilizing real-world historical control to accelerate approval: Bavencio (Avelumab) case in US

- **Indication**
  - Treatment of metastatic Merkel cell carcinoma (mMCC) in adults and pediatric patients 12 years or older
- **Timeline of Avelumab Approval**




- Median approval time without any expedited program: 8 years*
- Median approval time with breakthrough therapy and fast track designation: 4.8 years*

*Hwang et al. Jama, 2017*

# Is it a “Sea-change” coming for Regulatory?

- UK: MHRA said yes to a pharmaceutical company to use Real-World Data (RWD) to demonstrate the efficacy of a drug for a new indication, instead of carrying out a previously-agreed randomized control trial

## UK MHRA Spells Out Do's And Don'ts Of Real-World Evidence For Showing Efficacy

14 Aug 2018 | NEWS

by Vibha Sharma

@ScripRegVibha | vibha.sharma@informa.com

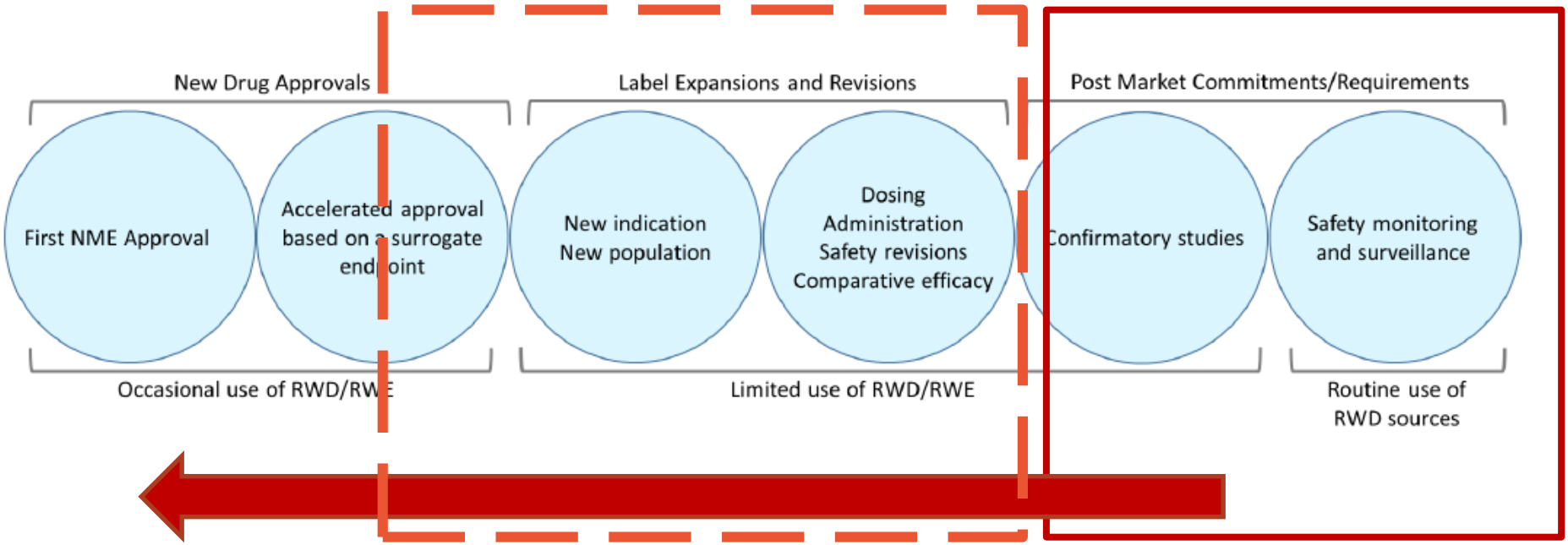
### Executive Summary

A senior UK regulator explains why the MHRA agreed to a complex real-world evidence study instead of an RCT to demonstrate a drug's efficacy, despite the challenges posed by potential for bias.

- Label expansion
- Comparative efficacy/effectiveness vs SOC
- Pre-specified adjustment for confounders
- Multiple RWD sources
- Early conversation with regulatory

*https://pink.pharmaintelligence.informa.com/PS123691/UK-MHRA-Spells-Out-Dos-And-Donts-Of-RealWorld-Evidence-For-Showing-Efficacy*

# Regulatory Applications of RWE Evolving




NOW!!

*"A framework for Regulatory Use of Real World Evidence":*
*https://healthpolicy.duke.edu/sites/default/files/atoms/files/rwe_white_paper_2017.09.06.pdf*

# Summary

- Historical use as supplementary information
- Expanding utilization for regulatory and payers
  - US FDA has mandates for exploring the use of RWE within the regulatory framework
  - UK MHRA commits precedence for potential use RWE to replace RCT
  - Active engagement between manufactures and regulatory agencies to use RWE in label expansion and accelerated approval, especially in rare disease conditions

ありがとうございました