Assessing Drug Safety

Paul J. Seligman, MD, MPH
Director
Office of Pharmacoepidemiology & Statistical Science
Center for Drug Evaluation & Research
Agenda

- Introduction/Overview - Seligman
- Pre-market assessment - Jenkins
  - Office of New Drugs
- Post-market assessment - Trontell
  - Office of Drug Safety
- Future Directions - Seligman
Goals

• How CDER is organized, staffed, “resourced” to assess safety
  – Clinical
  – Compliance & product quality
  – Risk communication

• How information flows within CDER

• Roles and responsibilities

• Key recent guidance documents
CDER Organization

• Key operational units
  – Office of New Drugs
  – Office of Pharmaceutical Sciences
  – Office of Pharmacoepidemiology & Statistical Science
  – Office of Compliance
  – Others (Office of Training and Communications, Regulatory Policy, etc.)
CDER Organization

- Office of New Drugs
  - 17 review divisions, plus OTC Office
  - 700 staff
  - review function
    - investigational drug applications
    - new drug applications
CDER Organization

- Office of Pharmaceutical Science
  - Generic drugs
  - Chemistry
  - Biotechnology products
  - Office of Testing and Research
- 331 staff
CDER Organization

- Office of Pharmacoepidemiology & Statistical Science
- Post-marketing risk assessment
  - Office of Drug Safety
  - 109 staff
- Biostatistics
CDER Organization

- Office of Compliance
  - New drug/labeling compliance
  - Manufacturing/product quality
  - 117 staff
CDER Organization

- Others
  - Communication/training
  - Regulatory policy
  - Medical policy
Recent Accomplishments

• Risk Guidance Documents
  – “Premarketing Risk Assessment”
  – “Good Pharmacovigilance Practices and Pharmacoepidemiologic Assessment”

• Best practices for industry
Recent Accomplishments

- **Good Review Practices**
  - Reviewer guidance
New Initiatives

- Drug Safety Oversight Board
- “Drug Watch”
  - previously discussed by Dr. Galson
Breadth of Safety Activities

- Drug safety involves more than watching for problems after a drug is approved.
- Important areas where evaluation of drug safety occurs include:
  - Oversight of clinical trials
  - Evaluation of safety and efficacy of new therapies, and new or expanded uses for existing therapies
  - Regulation of manufacturing, distribution and promotional activities.
  - Prevention of medication errors through the evaluation of proposed proprietary names, labeling, and packaging
  - Development of proactive risk management strategies before (and after) approval
Future Directions

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Develop Science of Safety

• Scientific basis for risk assessment
  – mechanistic understanding of drug injury processes
  – physiologic, metabolic, genetic bases for AEs
  – who is at risk
    • individual basis, population variability
  – markers for drug-induced injury
    • assessment “circumstantial”
Develop Science of Safety

- Enhanced clinical assessment methods
  - pre- and post-market
  - improved trial design
    - enrichment, adaptive designs
    - better utilization of existing data
  - robust Phase IV program
Better Surveillance Tools

• Improving quality & quantity of data
  – easier, interactive case reporting
    • electronic, web-accessible/fillable
  – “active” surveillance
    • linkage of datasets
    • electronic medical record
    • public and private sector
  – population-based data
    • regular, robust program of observation studies
  – analytic tools (e.g., data mining)
Strengthening CDER

- Staffing for enlarging mandate
  - review and evaluation of risk minimization action plans

- Improve internal processes
  - work processes, roles/responsibilities
    - communication
    - information flow
    - tracking and accountability
Strengthening Partnerships

- Federal agencies
  - CMS, AHRQ, CDC, NIH, HRSA
- Academia
  - CERTs
- Healthcare institutions
  - payers, providers
- Sponsors
  - pre- and post-marketing responsibilities
Effective Communication

- Improve therapeutics
  - realizing benefits
  - minimizing risks
- Enhance patient safety
- Reduce medication errors
- Healthcare system issue
Questions

- Site visit??