Risk based approaches to monitoring of vaccine clinical trials:

A quality driven and cost-effective model

Abby Abraham

Vice President – Clinical Solutions

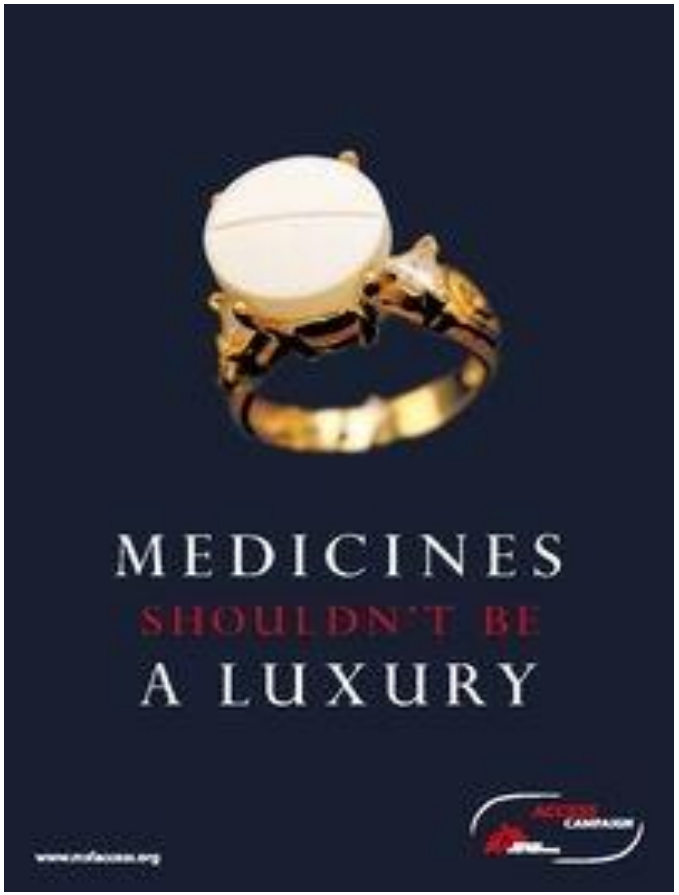
www.algorics.com



Topics

- Industry challenge
  - Spiraling costs of clinical trials in drugs & vaccines
  - Current state of clinical trial monitoring
  - Monitoring outcomes & Quality
- Solution
  - What is RBM
  - How does it work?
  - How to implement?
  - Technology intervention
- A peek into data visualization and risk indication
- Benefits of using RBM
- Is RBM optional in the new world?

Affordability of medicines today



Industry challenge



Vaccine development costs

- Spiraling R&D costs:
  - Vaccine R&D costs:
    - WHO estimates between US$163 & $518 Mn
    - US $500 Mn to US$ 1 Bn*
  - Clinical development is expected to be ~ 60 to 70% of total R&D
    - ~ $100 to $600 Mn USD
  - Clinical monitoring and management costs 35 to 55% of phase II & III clinical trials
    - ~ $44 Mn to $ 200 Mn





* Investing in vaccines for the developing world – PATH White paper, April 2009

Clinical trial monitoring - current state

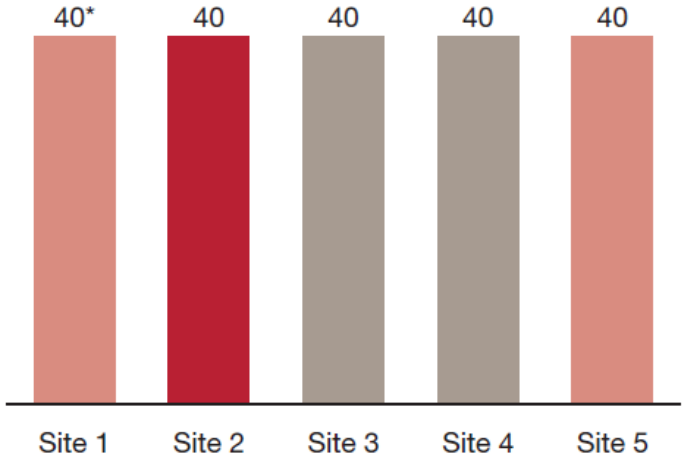


High-risk site
Medium-risk site
Low-risk site

*Site monitoring relative costs (percent)

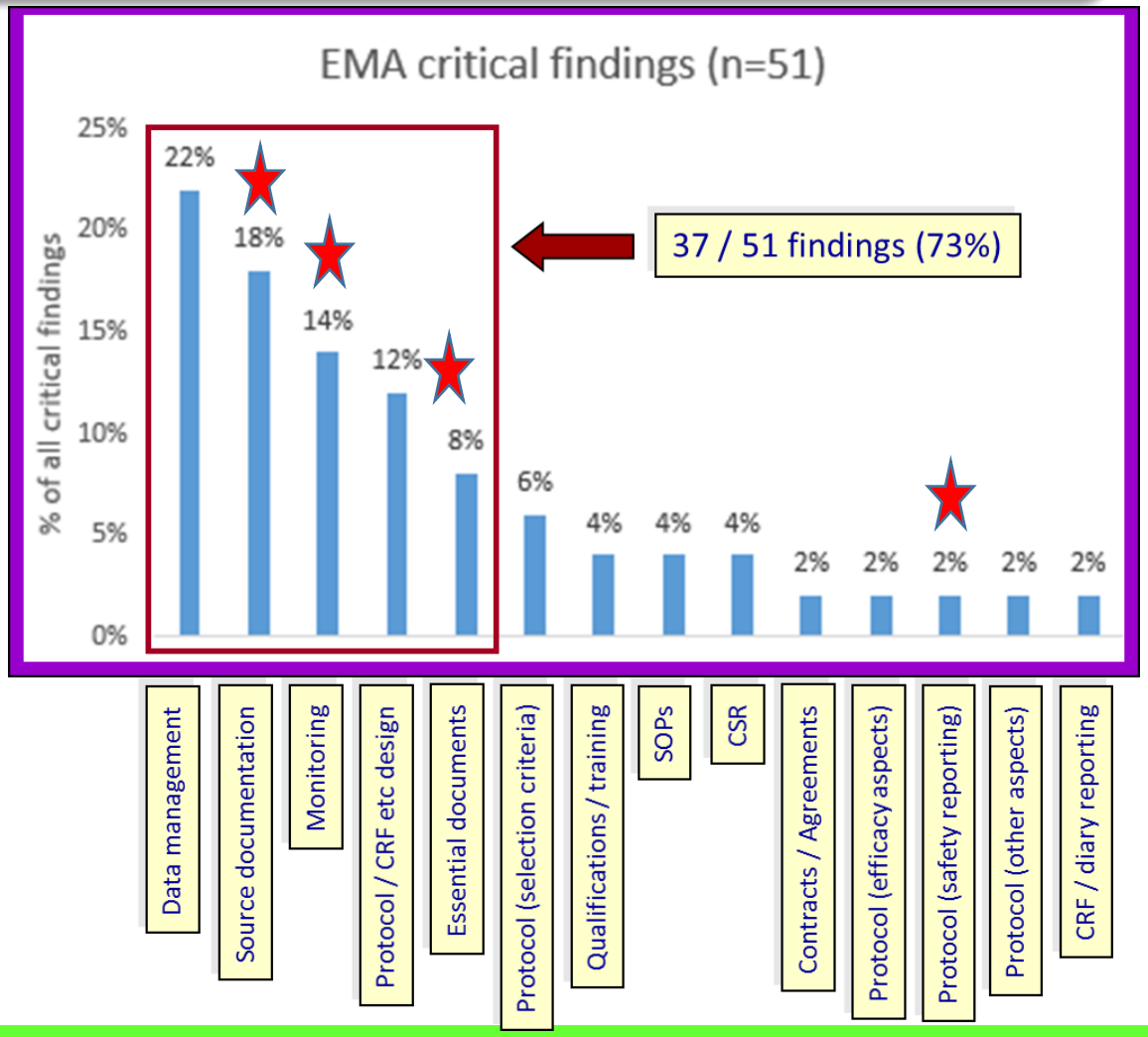
Current monitoring practices

Current monitoring practices allocate monitoring resources uniformly among study sites, regardless of the risk to patients or clinical data from individual sites.



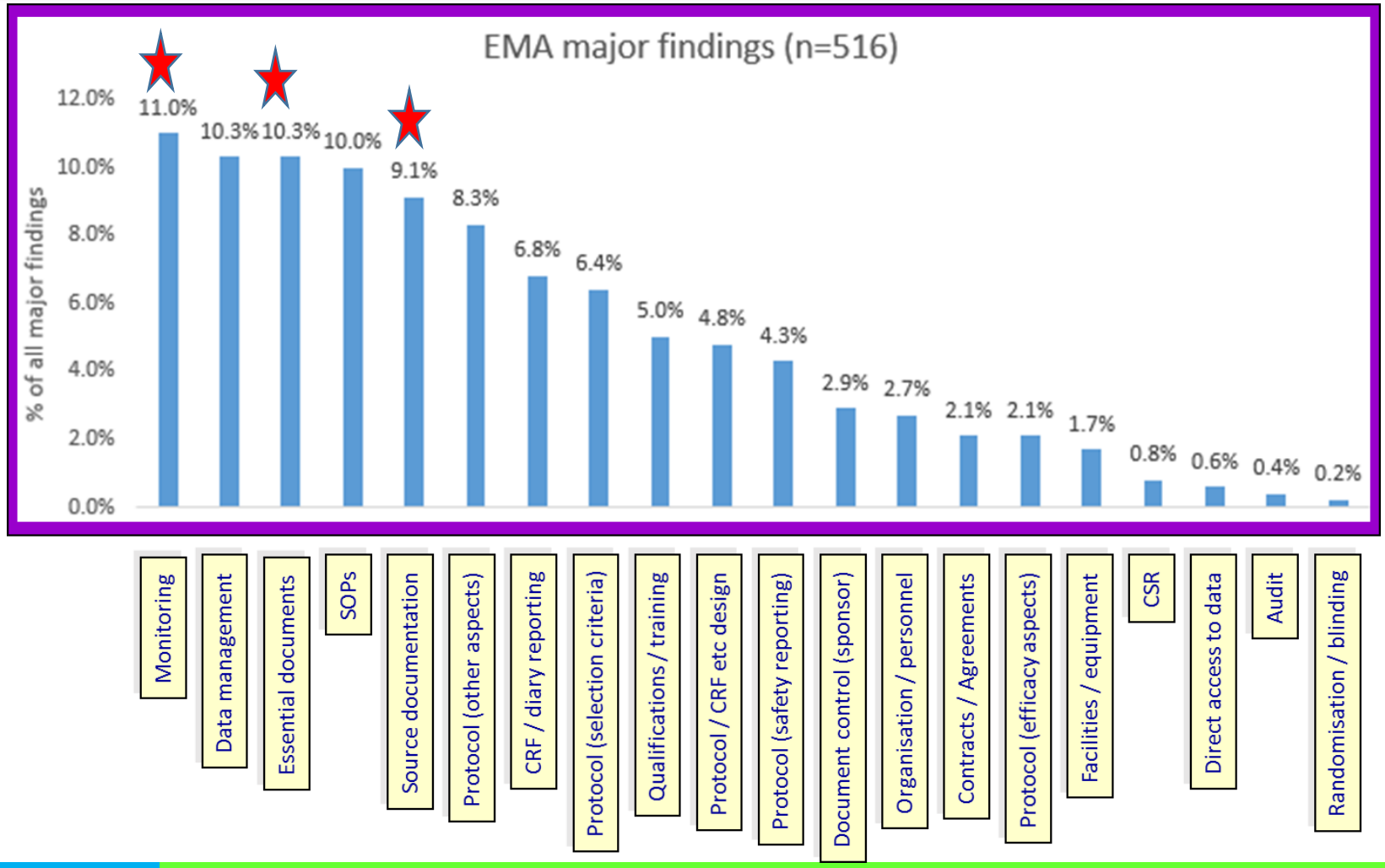
Risk based monitoring: Reduce clinical trial cost while protecting safety & Quality, March 2013

Monitoring outcomes – Critical findings (last 10 years)



Source: Uniting to achieve oversight compliance by Alan M, Patrica L presented at PCT EU Conference, 6 November 2013

Monitoring outcomes – Major findings (last 10 years)



Source: Uniting to achieve oversight compliance by Alan M, Patrica L presented at PCT EU Conference, 6 November 2013

Gap in monitoring methodology



Traditional on-site monitoring



Intensive manual analysis

Current approaches

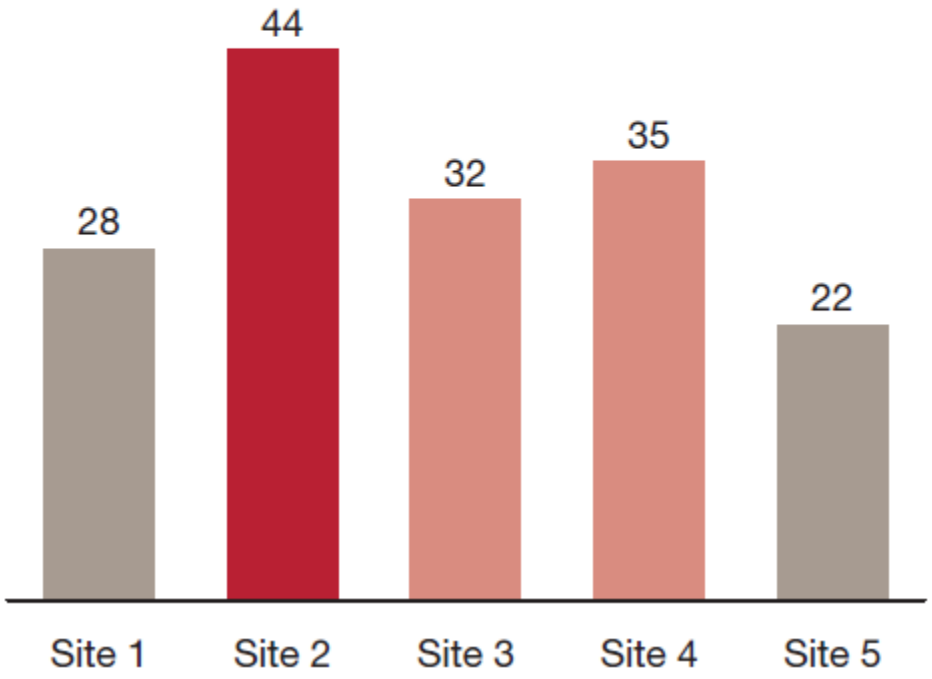
Solution



Solution (RBM)

Risk-based monitoring

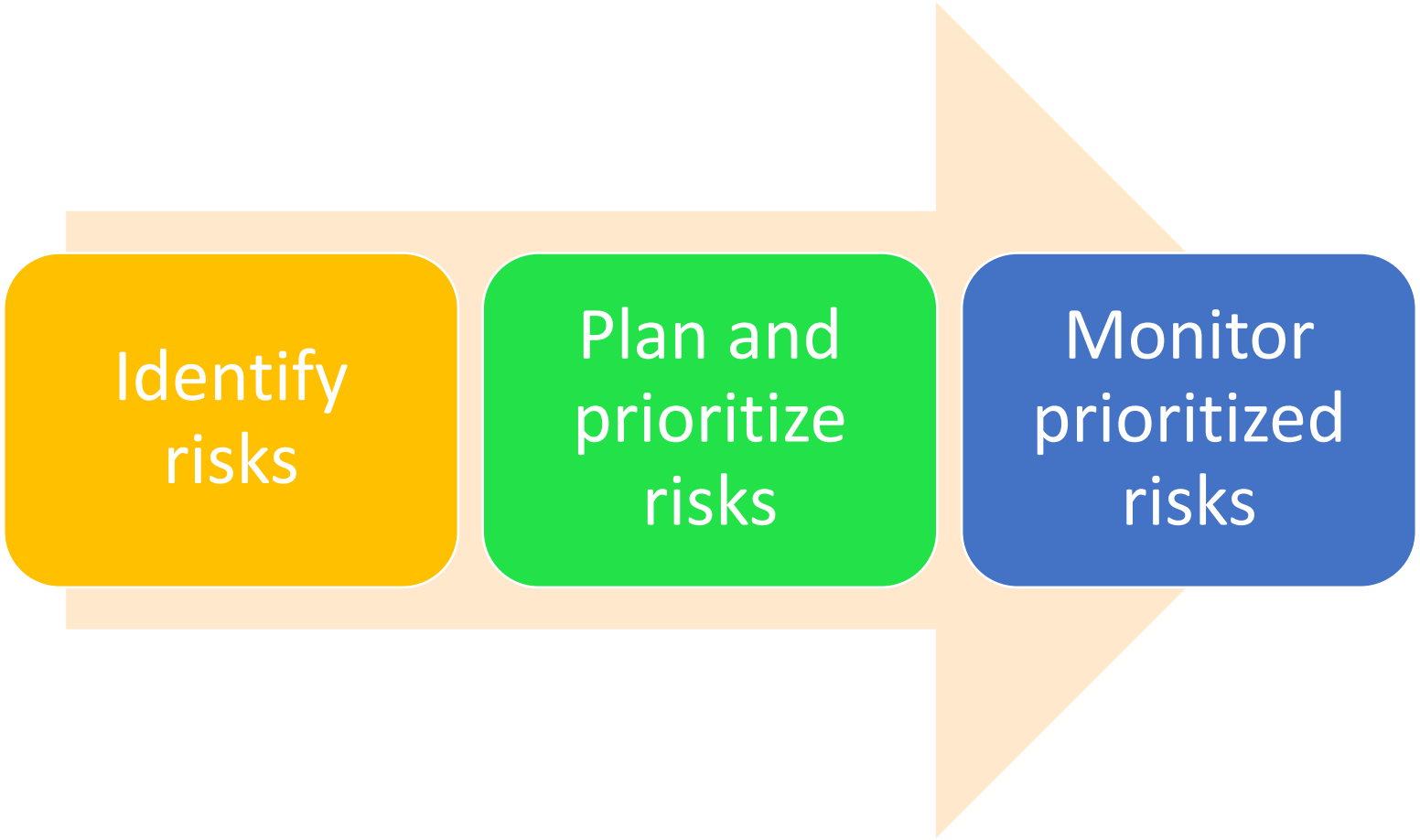
A risk-based monitoring approach allows for the identification of risk at individual sites and allocates monitoring resources to optimally address and mitigate patient safety and data quality risk.



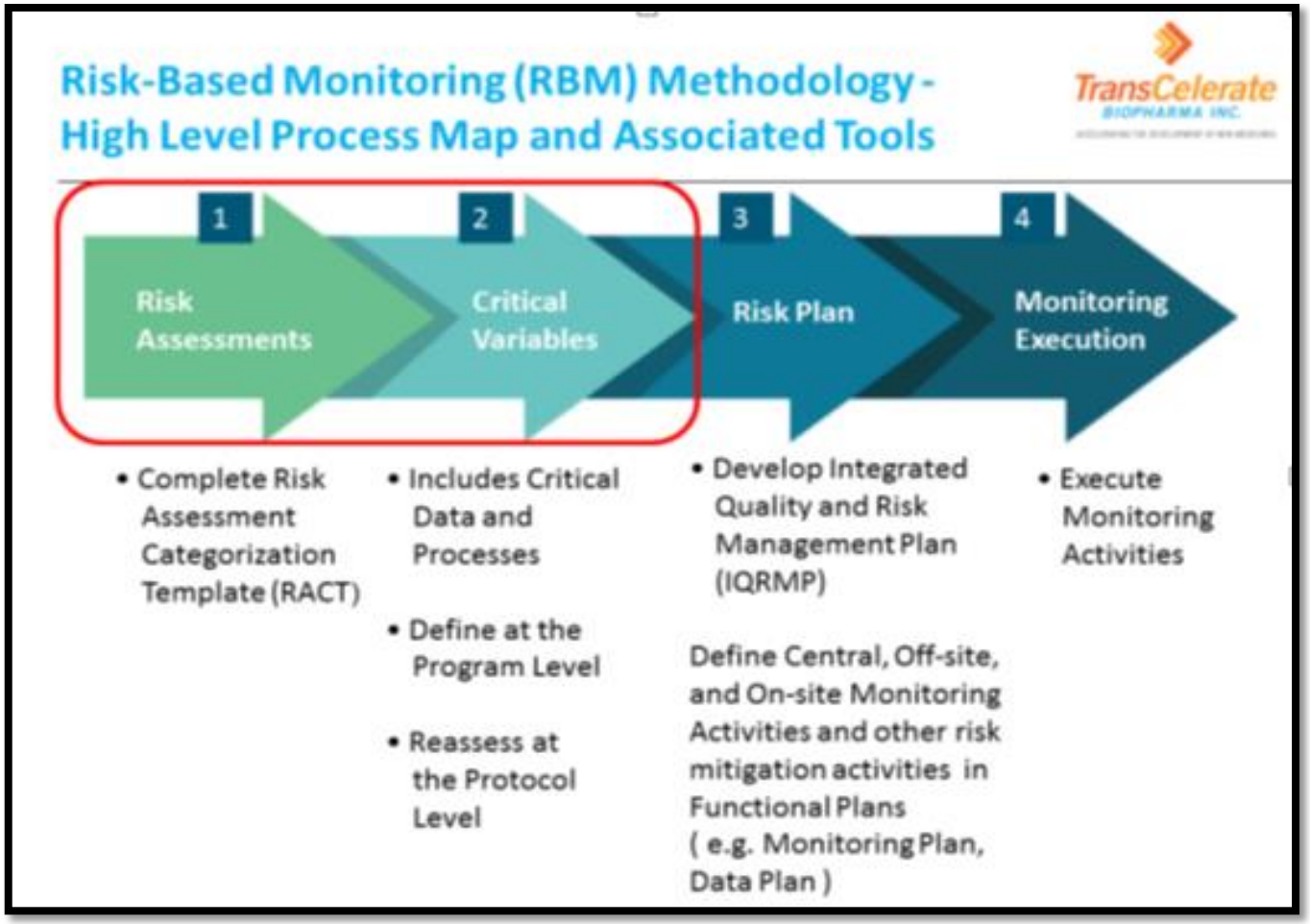


PWC white paper on RBM, March 2013

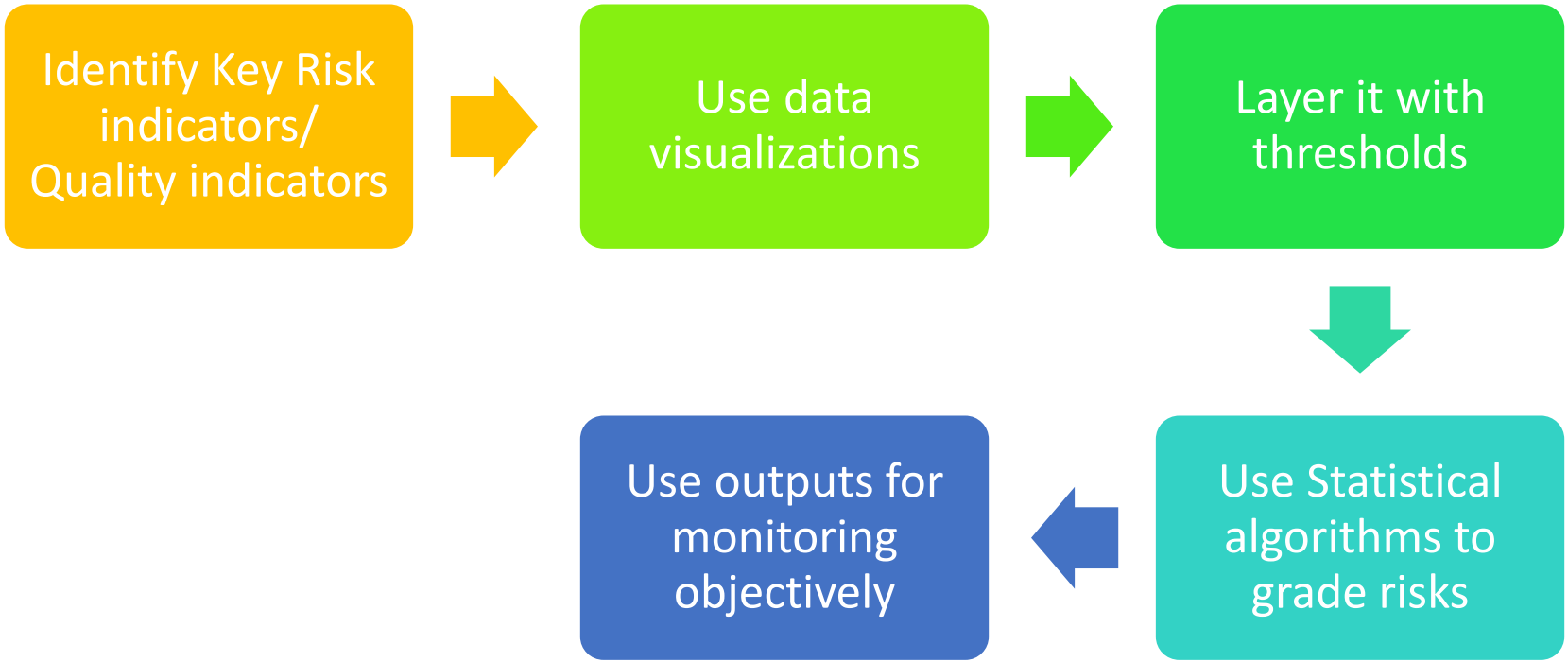
What is Risk based monitoring?



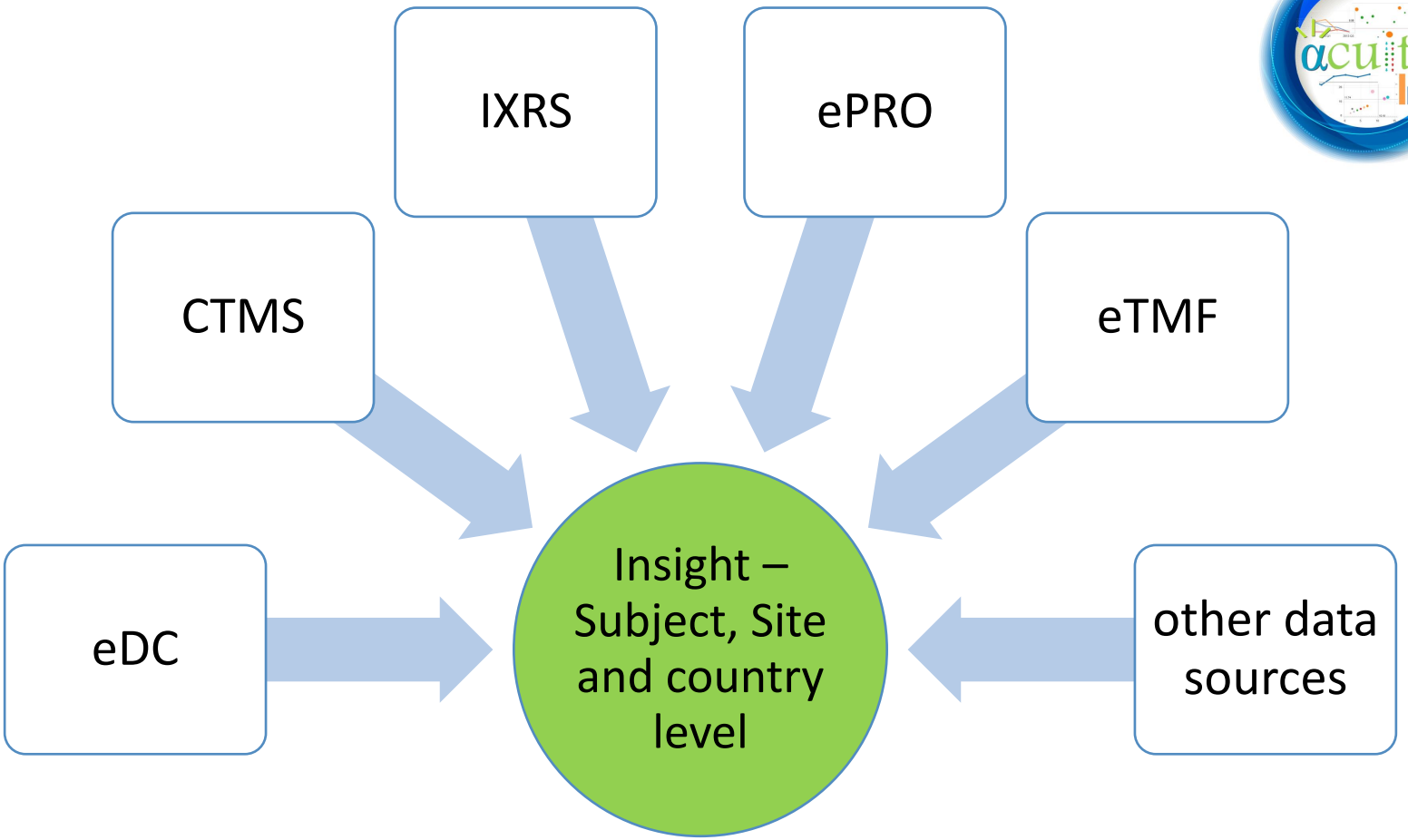
How does it work?



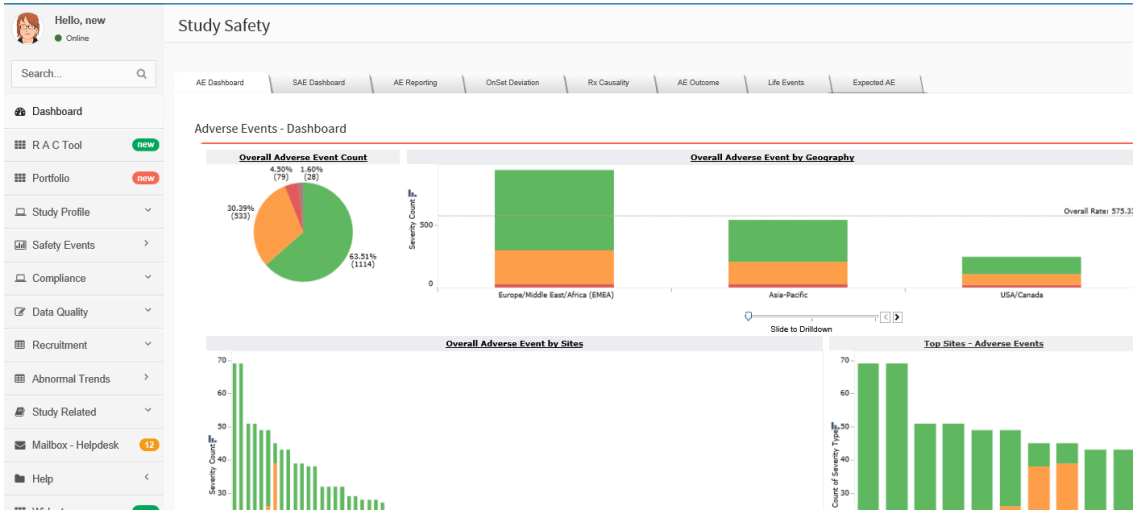
How to implement?

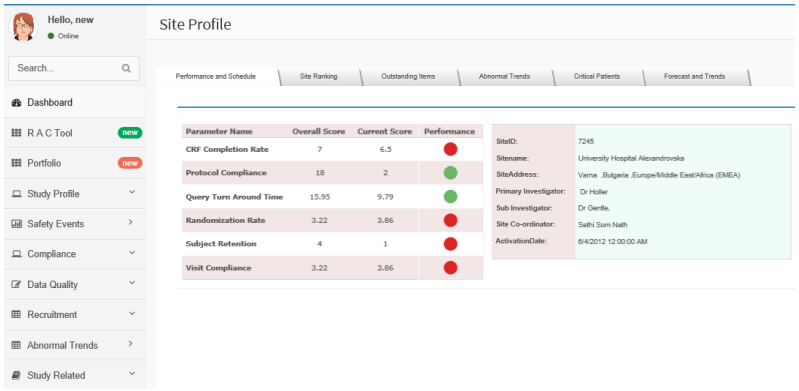


Fundamental requirement– Data confluence

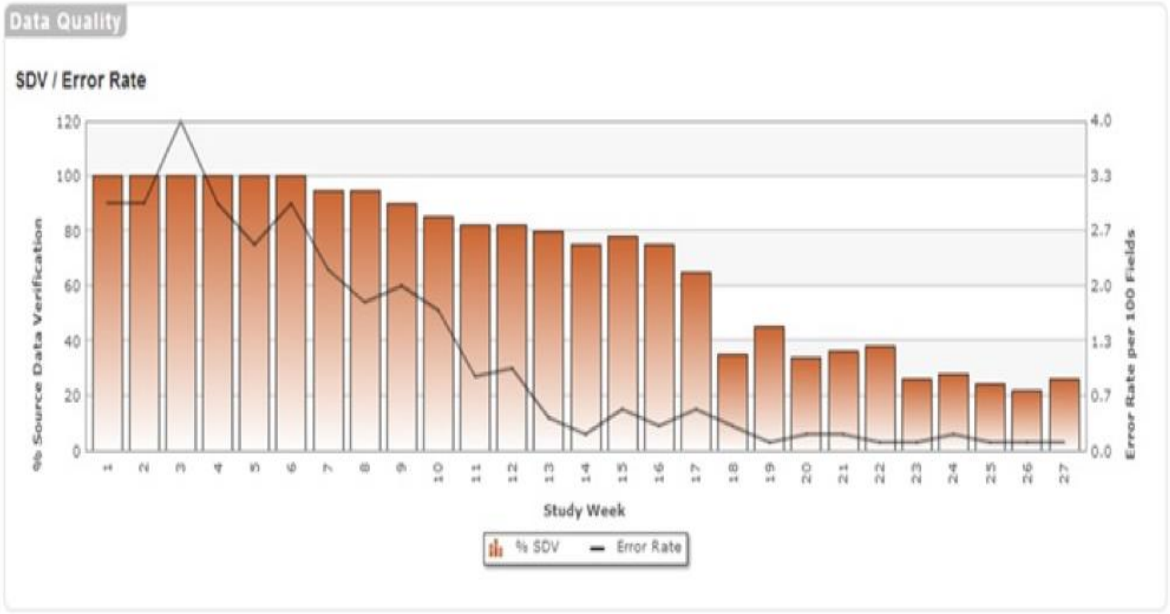


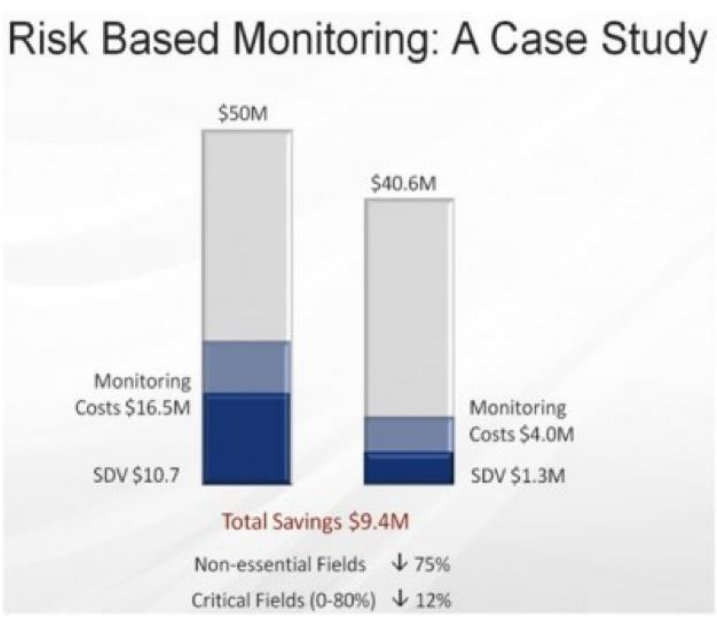
Monitor based on risks





Expected Quality & Cost benefits

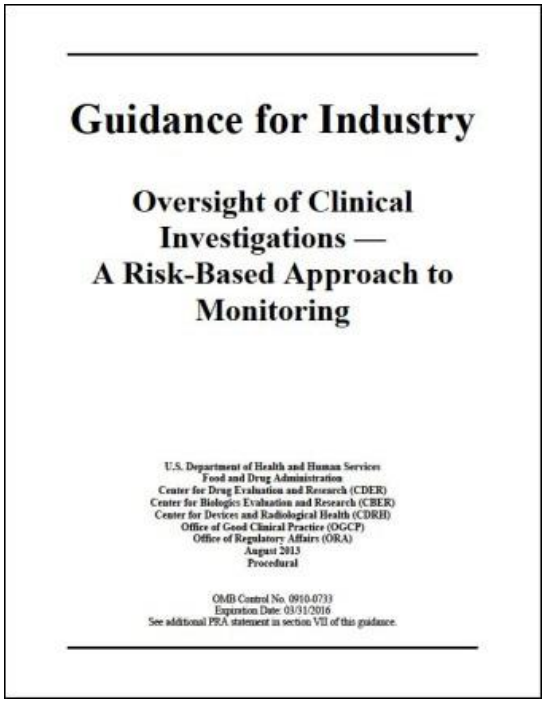




Risk-Based Monitoring Case Study: Lessons from a 3,389-subject Global Phase III Trial

Oct 06, 2015 By Lisa James
Applied Clinical Trials

Is it “good to have” or “Must have”?



Guidance for Industry

Oversight of Clinical Investigations — A Risk-Based Approach to Monitoring

U.S. Department of Health and Human Services
Food and Drug Administration
Center for Drug Evaluation and Research (CDER)
Center for Biologics Evaluation and Research (CBER)
Center for Devices and Radiological Health (CDRH)
Office of Good Clinical Practice (OGCP)
Office of Regulatory Affairs (ORA)
August 2013
Procedural

OMB Control No. 0910-0733
Expiration Date: 03/31/2016
See additional PRA statement in section VII of this guidance.

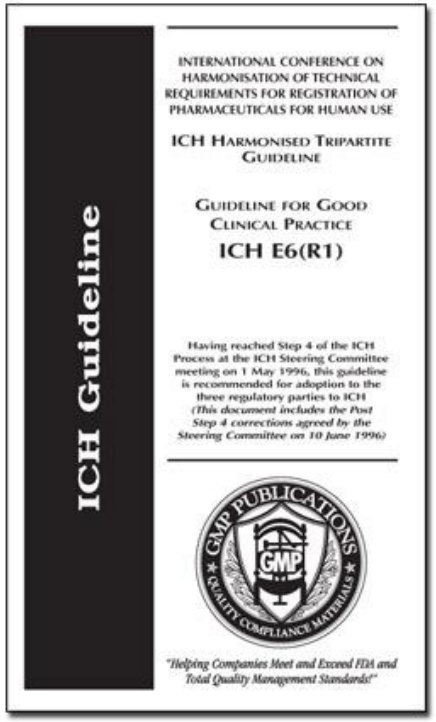


EUROPEAN MEDICINES AGENCY
SCIENCE · MEDICINES · HEALTH

Reflection paper on risk based quality management in clinical trials

Draft Agreed by the Clinical Trial Facilitation Group (CTFG) for release for consultation	31 May 2011
Draft Adopted by the Good Clinical Practice (GCP) Inspectors Working Group for consultation	14 June 2011
Start of public consultation	5 August 2011
End of consultation (deadline for comments)	15 February 2012
Agreed by the Clinical Trial Facilitation Group (CTFG) for publication	13 September 2013
Adopted by GCP Inspectors Working Group	12 September 2013

Keywords	Quality Management, Risk Management, Quality Tolerance Limit, Risk Control, Clinical Trial



ICH Guideline

INTERNATIONAL CONFERENCE ON HARMONISATION OF TECHNICAL REQUIREMENTS FOR REGISTRATION OF PHARMACEUTICALS FOR HUMAN USE

ICH HARMONISED TRIPARTITE GUIDELINE

GUIDELINE FOR GOOD CLINICAL PRACTICE

ICH E6(R1)

Having reached Step 4 of the ICH Process at the ICH Steering Committee meeting on 1 May 1996, this guideline is recommended for adoption to the three regulatory parties to ICH
(This document includes the Post Step 4 corrections agreed by the Steering Committee on 10 June 1996)

GMP PUBLICATIONS
GMP
QUALITY COMPLIANCE MATERIALS

"Helping Companies Meet and Exceed FDA and Total Quality Management Standards!"

FDA

EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH

ICH
harmonisation for better health

Thank you

