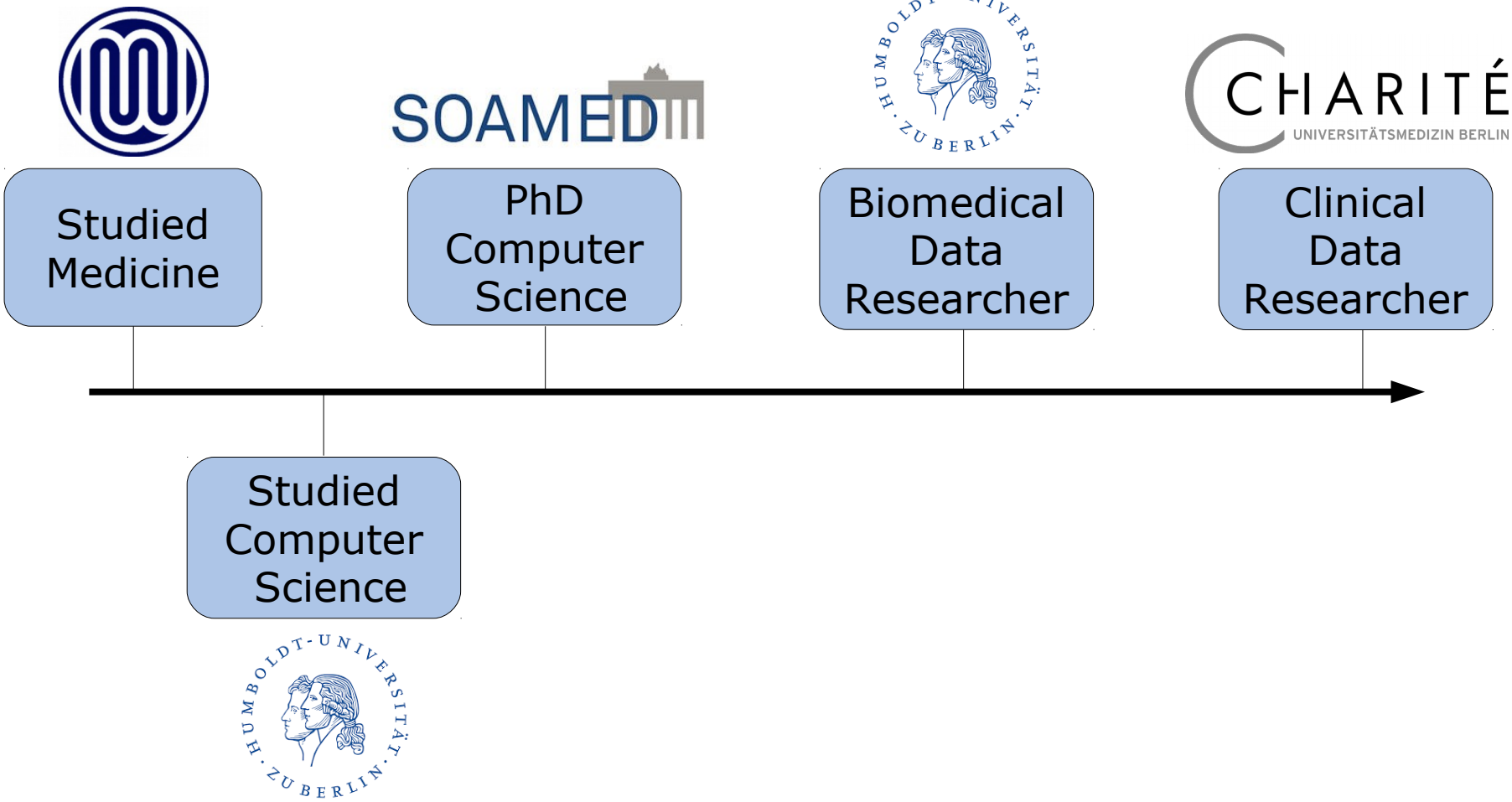
Data, Outcomes, and Evidence:
Data Science in The Life Cycle of Evidence Based Medicine

Johannes Starlinger

Important notice:

Several slides contained in the original, oral presentation which showed copyrighted material and/or unpublished results have been redacted/removed.

About me


Studied Medicine
PhD Computer Science
Biomedical Data Researcher
Clinical Data Researcher
Studied Computer Science
SOAMED
CHARITÉ
UNIVERSITÄTSMEDIZIN BERLIN
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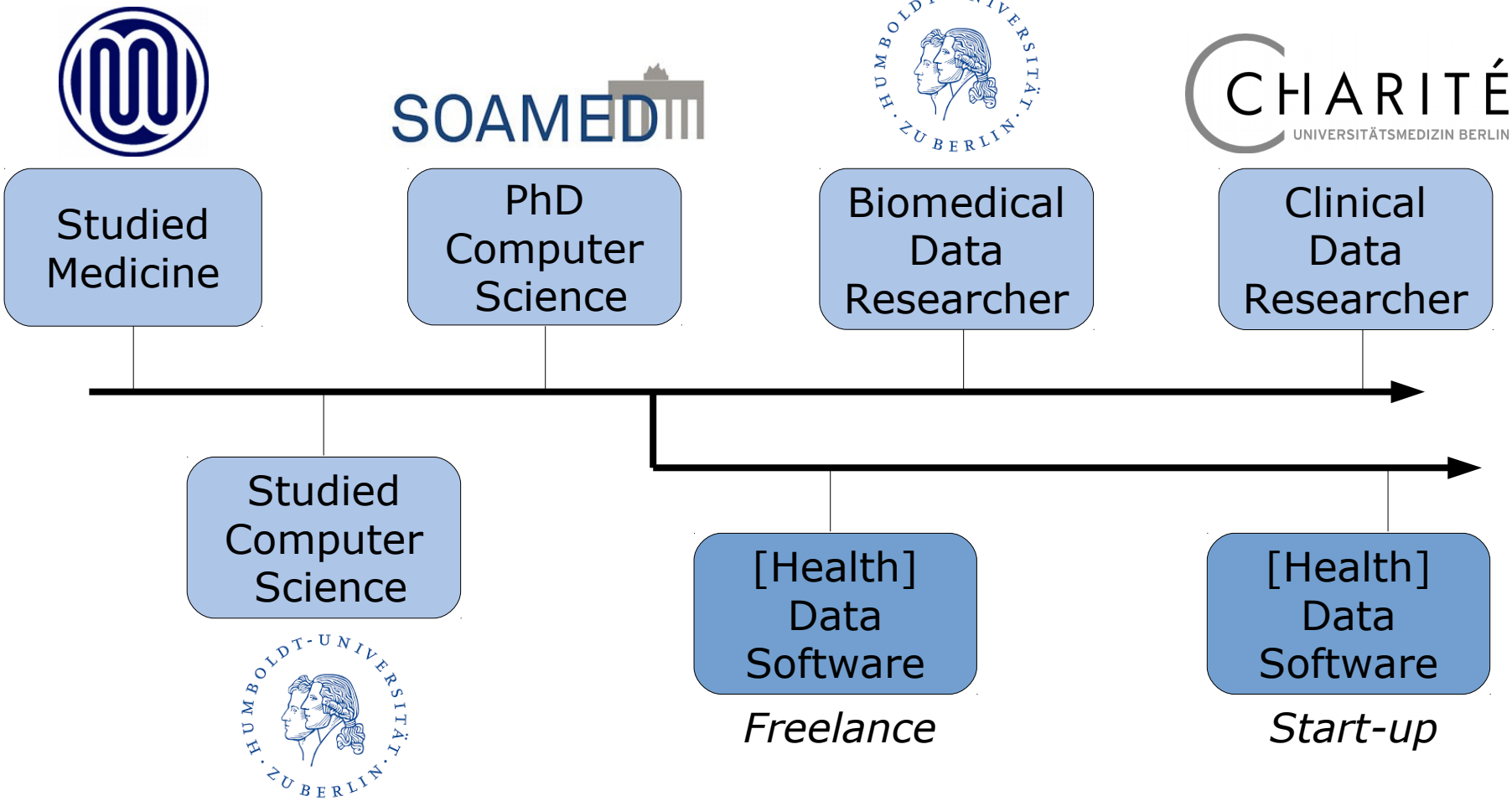
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[Health] Data Software
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Freelance
Start-up

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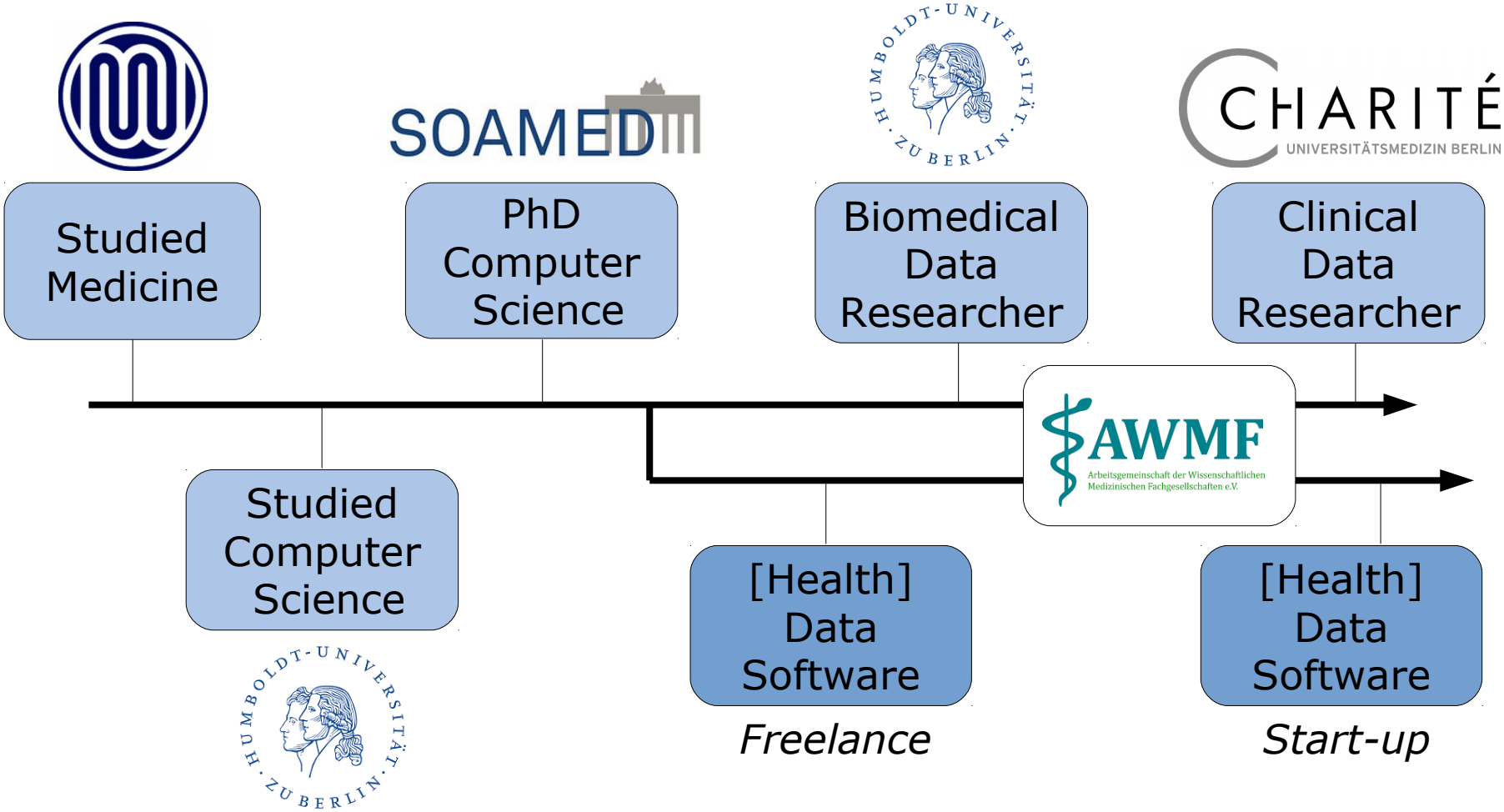
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The Life Cycle of Evidence Based Medicine

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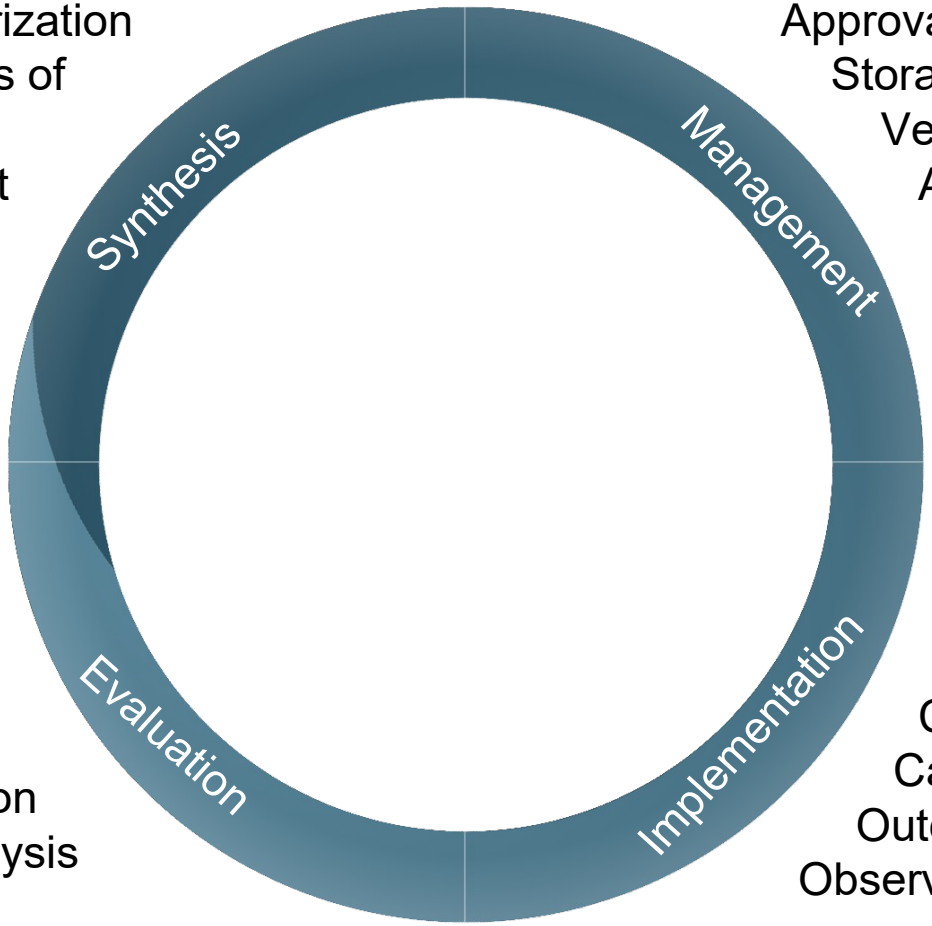

Summarization
Synthesis of Recommendations
COI Assessment
Consensus Process
Evidence Rating
Evidence Review

Approval
Storage
Versioning
Archival
Indexing
Publication
Searchability

Assessment
SOPs
Care Planning
Care Pathways
Outcomes
Observations

New Evidence
Clinical Studies
Hypothesis Geneartion
Outcome Analysis

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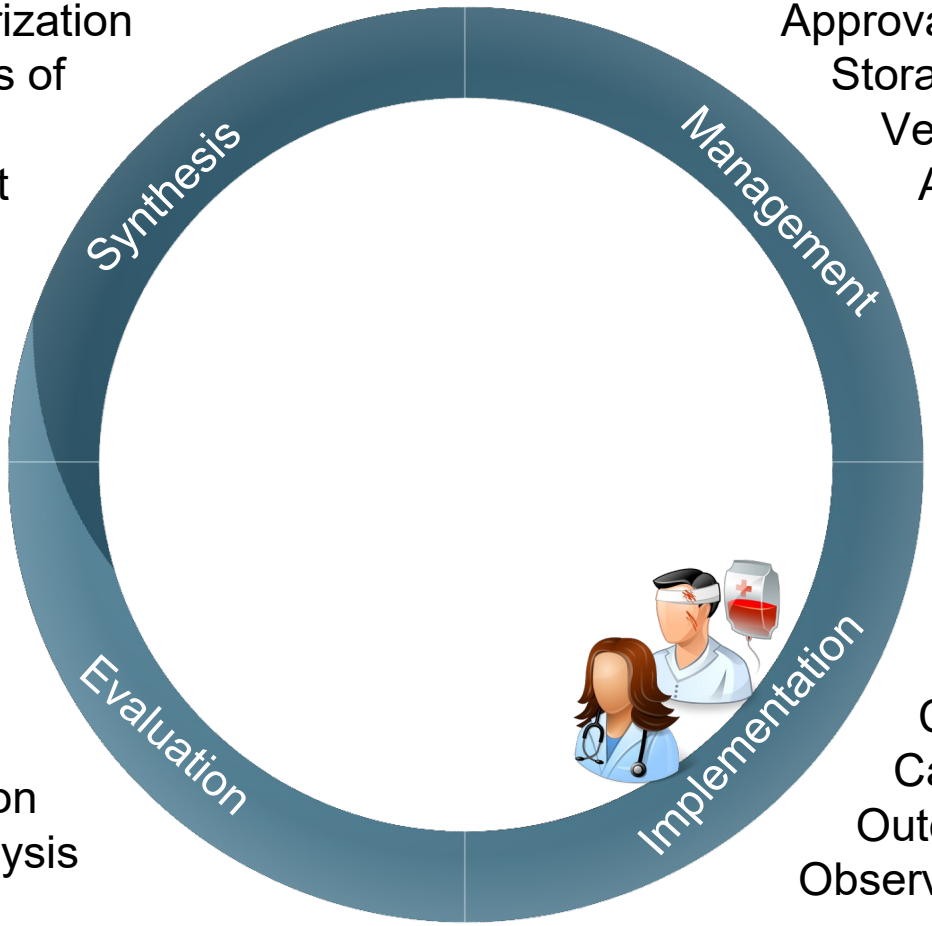

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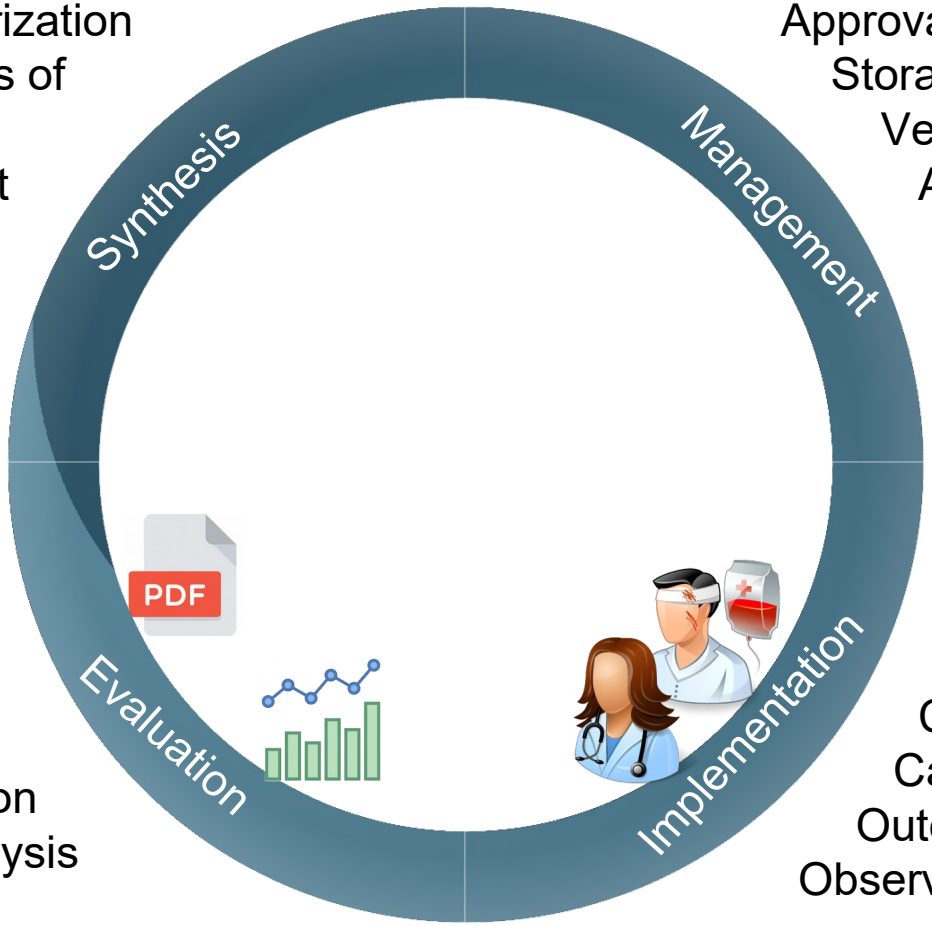

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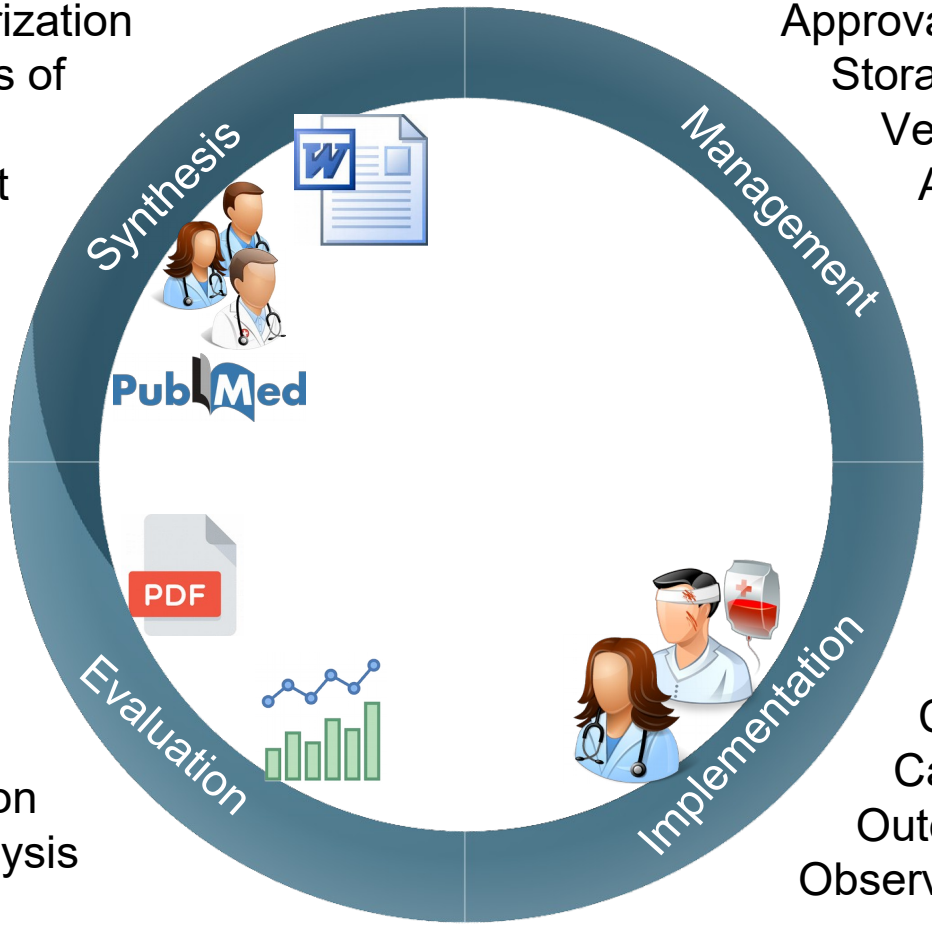

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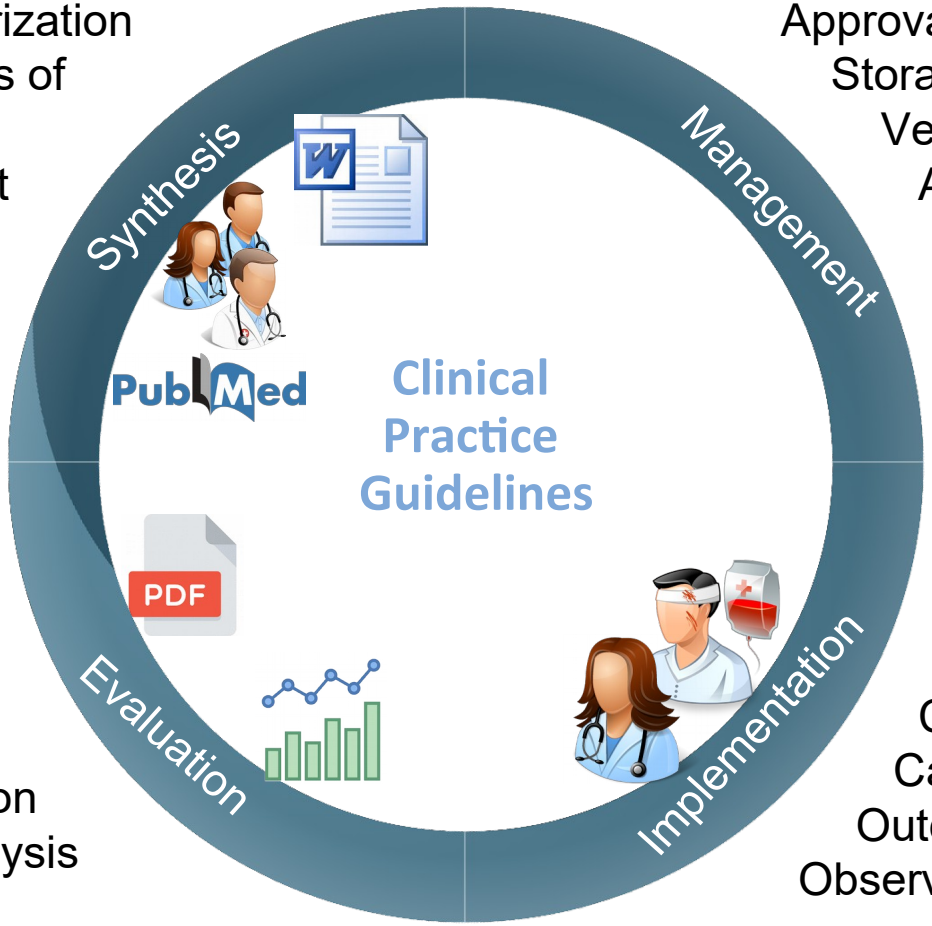

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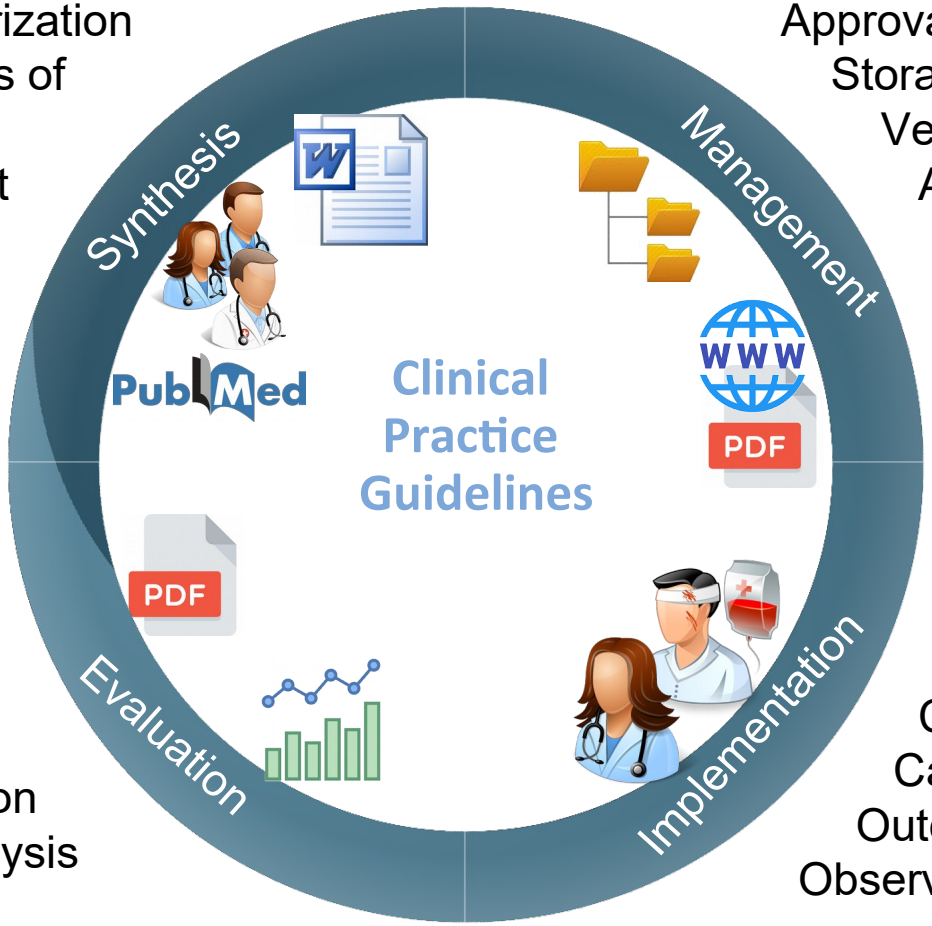

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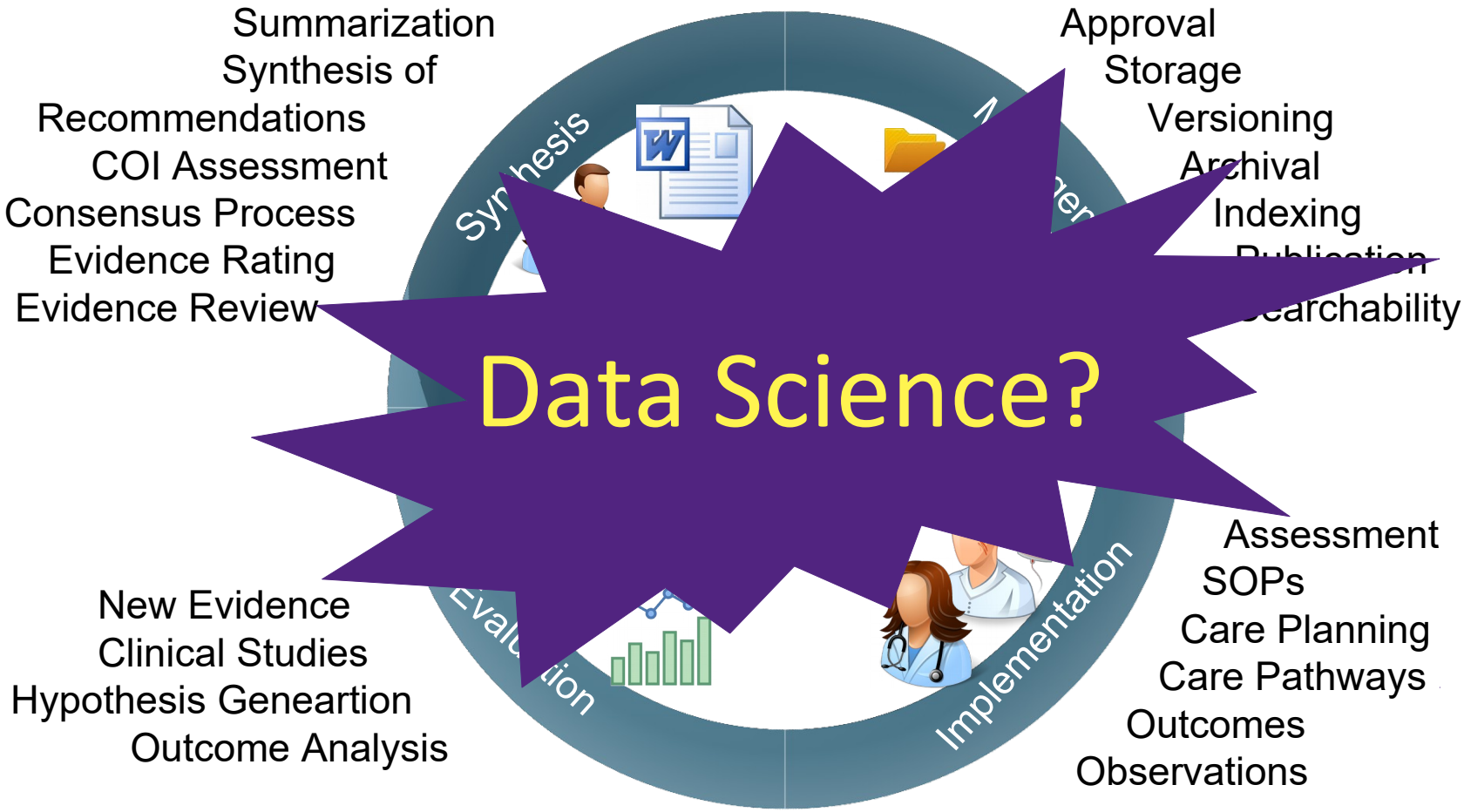

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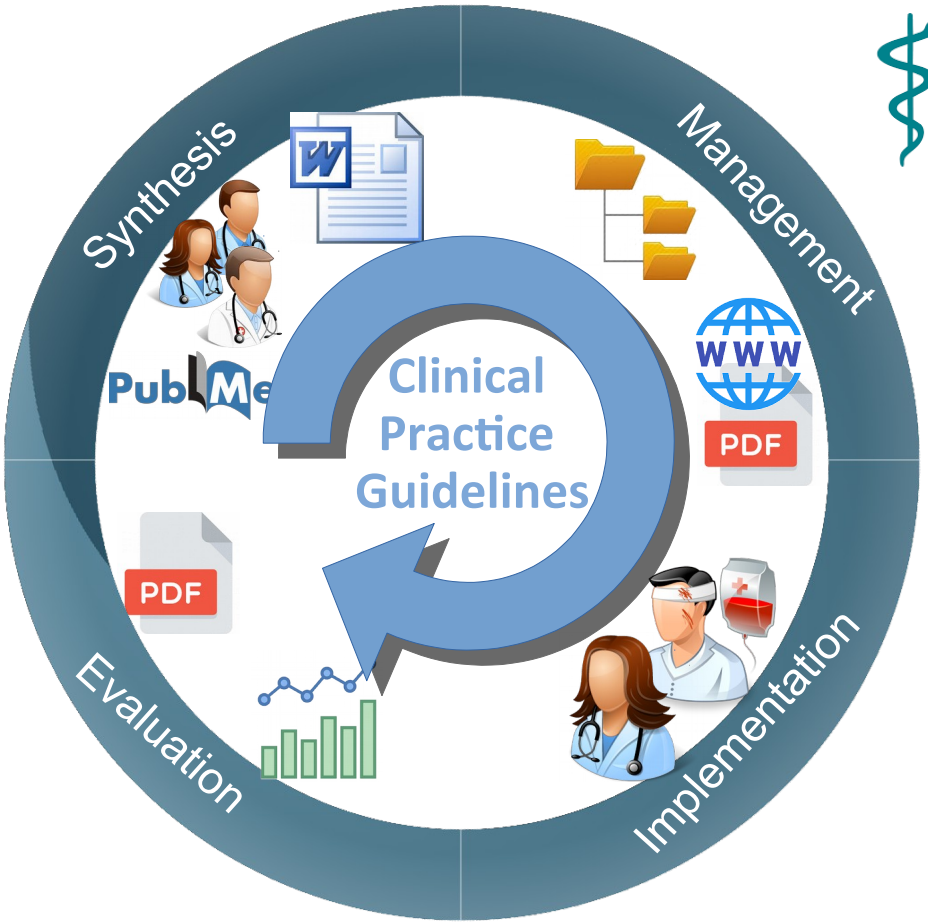

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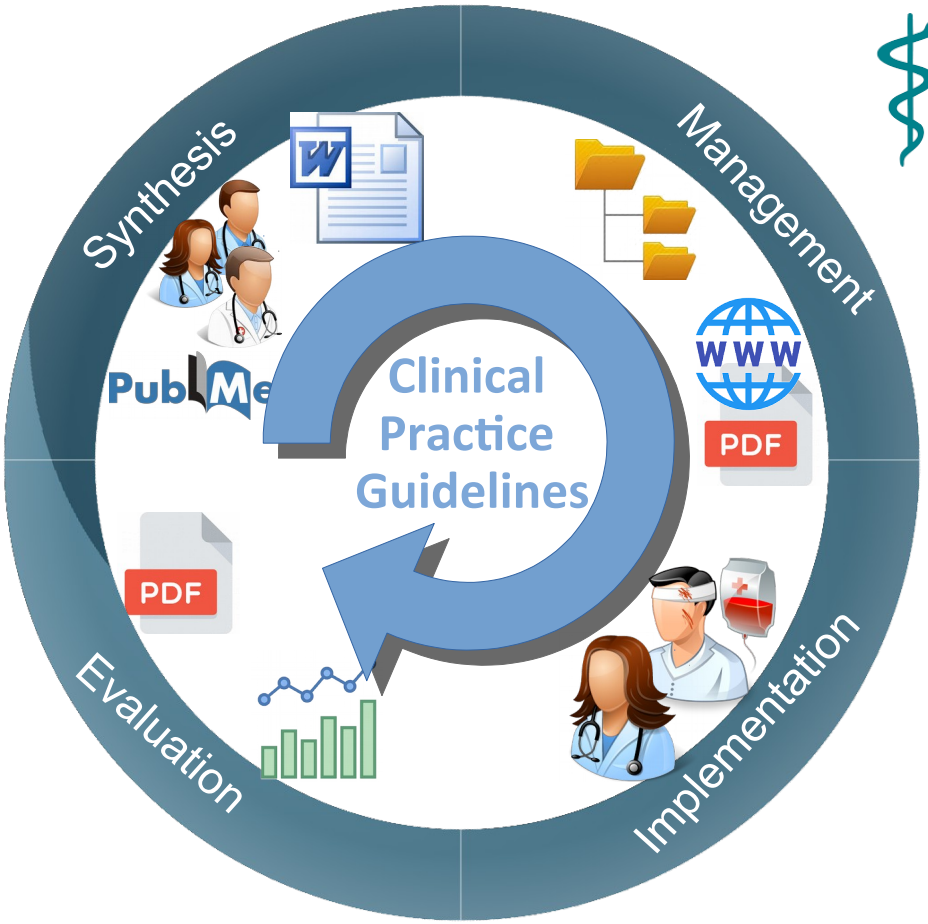
Future



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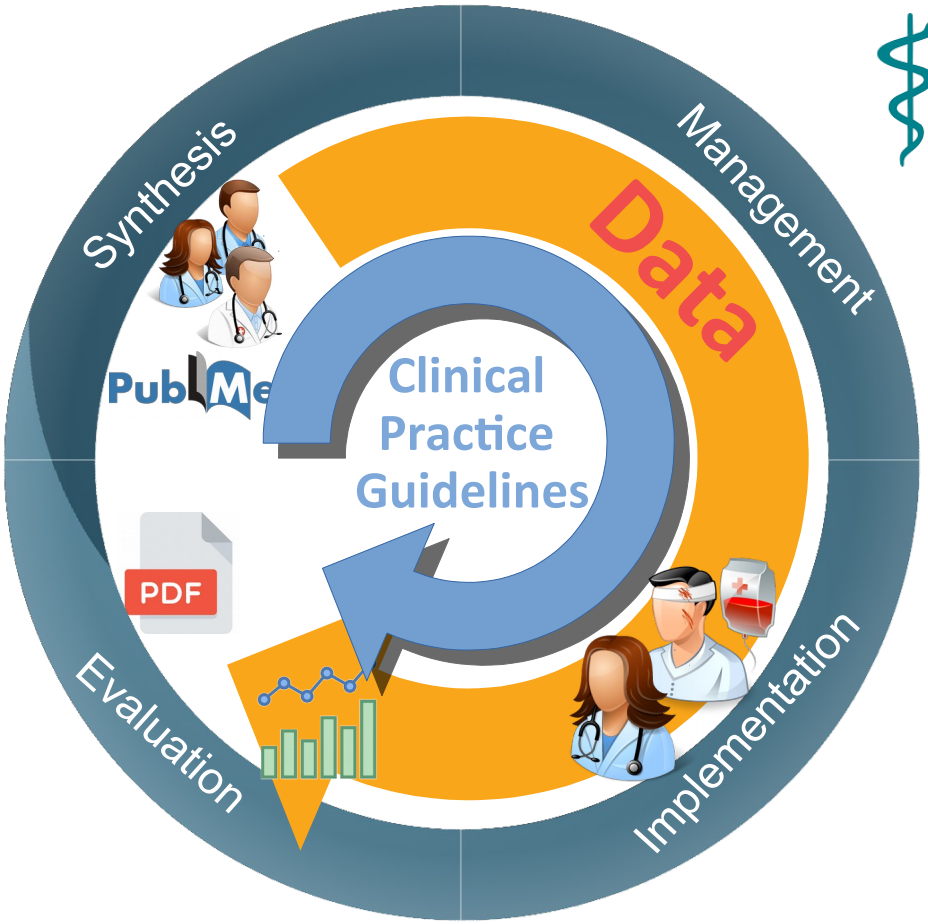

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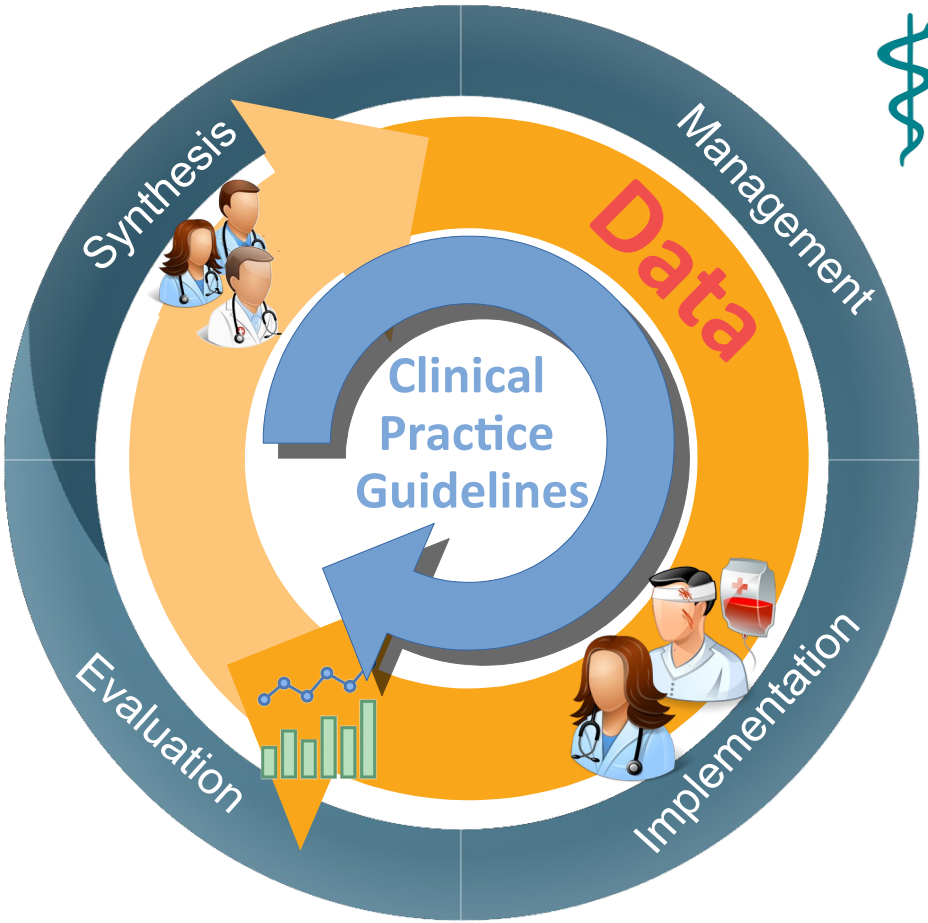

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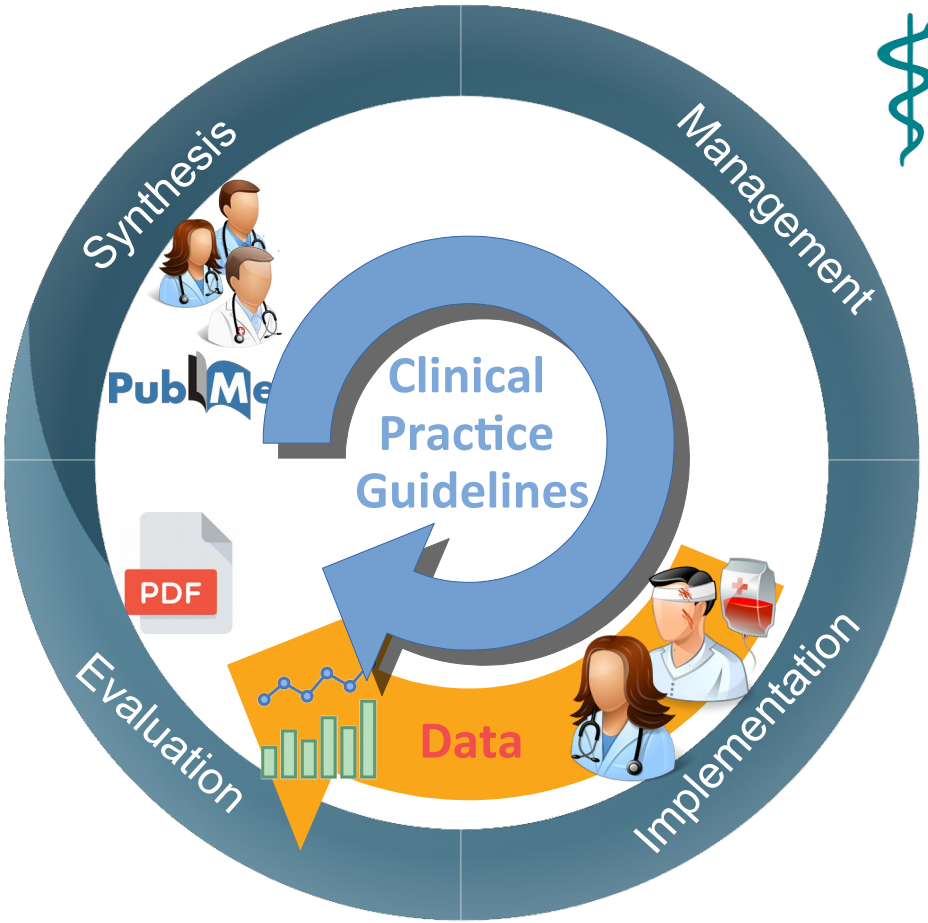

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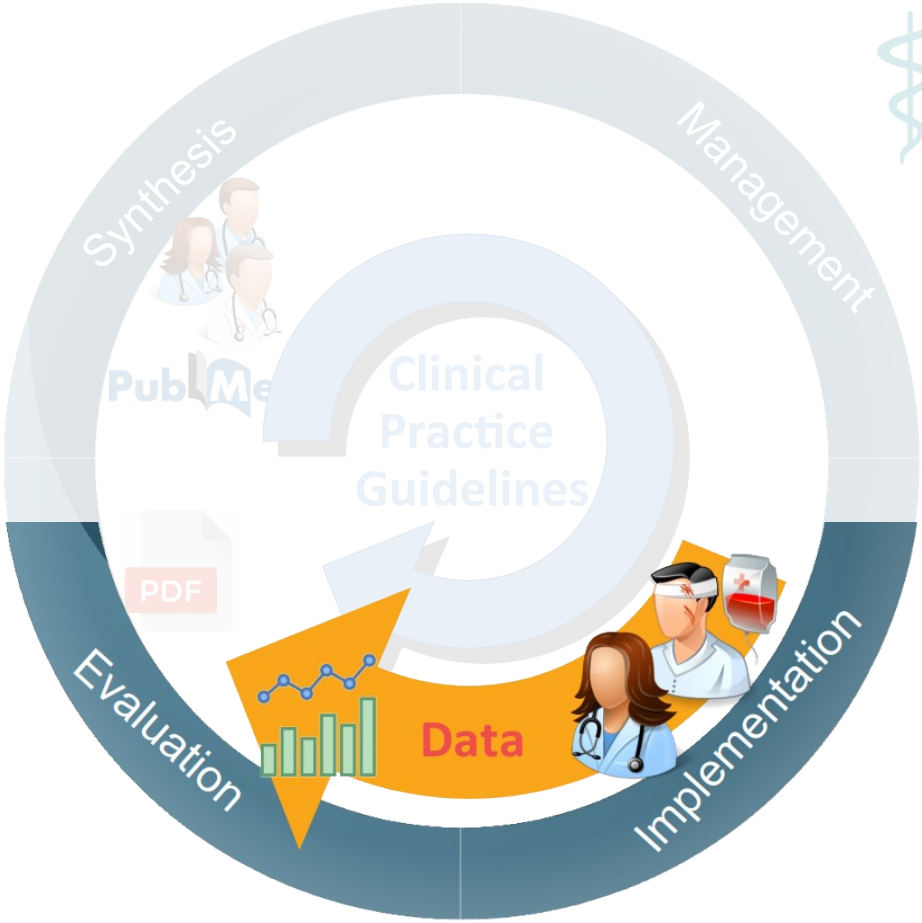

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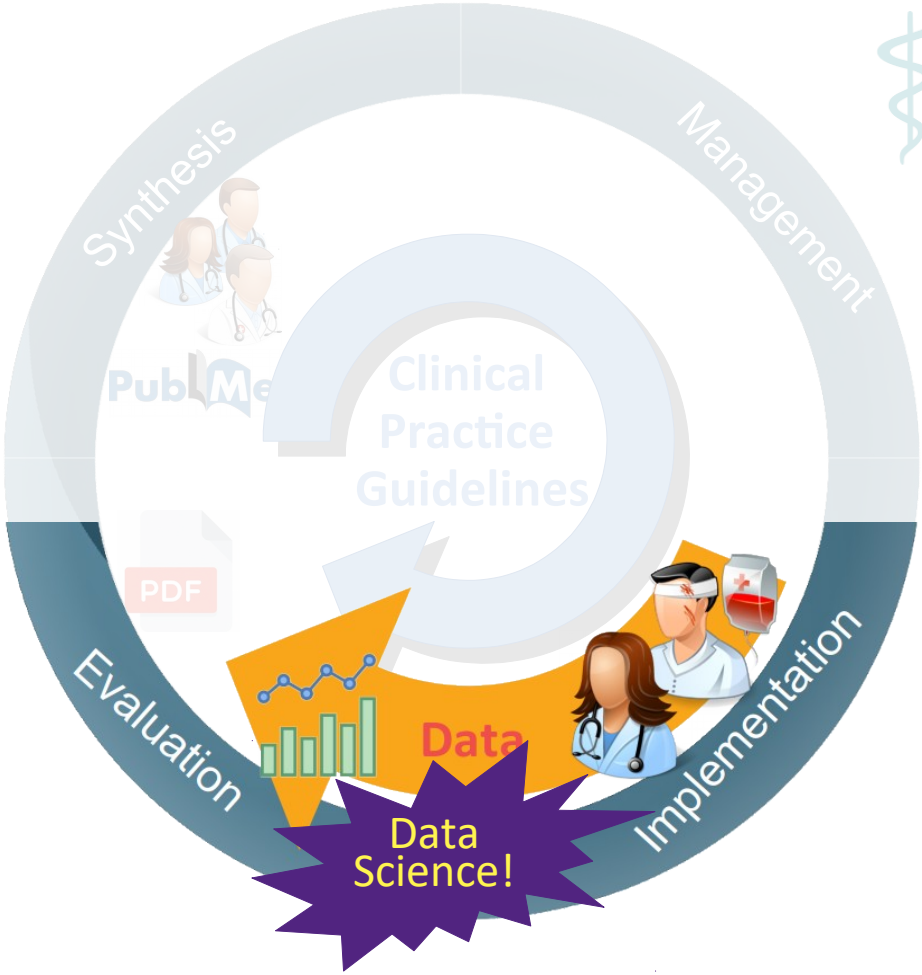

The Life Cycle of Evidence Based Medicine

About the patient

Graphic and commentary removed, please refer to

Weber et al. Finding the Missing Link for Big Biomedical Data, JAMA June 25, 2014, Volume 311, Number 24, pp. 2479

Evidence Based

Personalized Medicine

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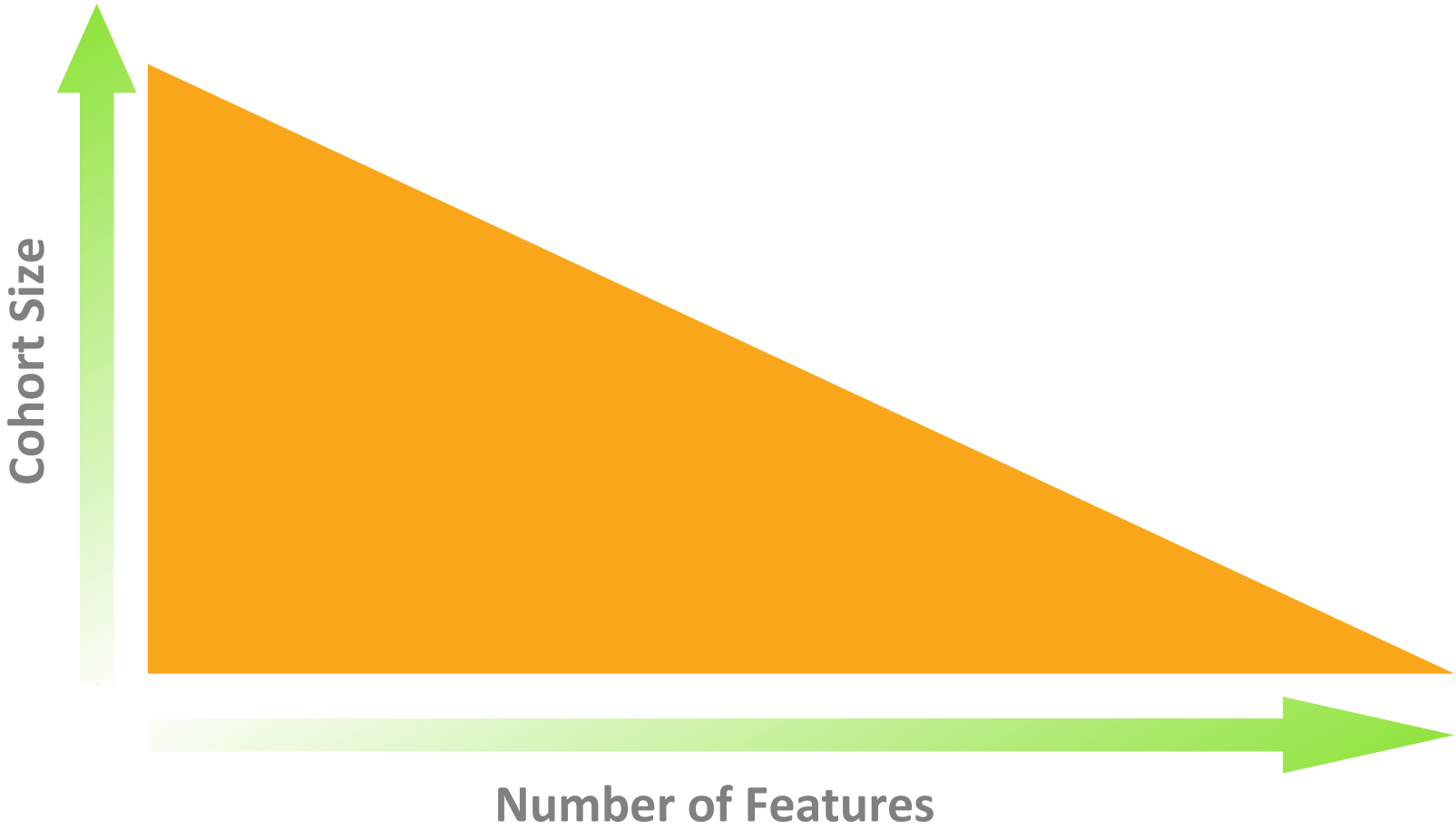

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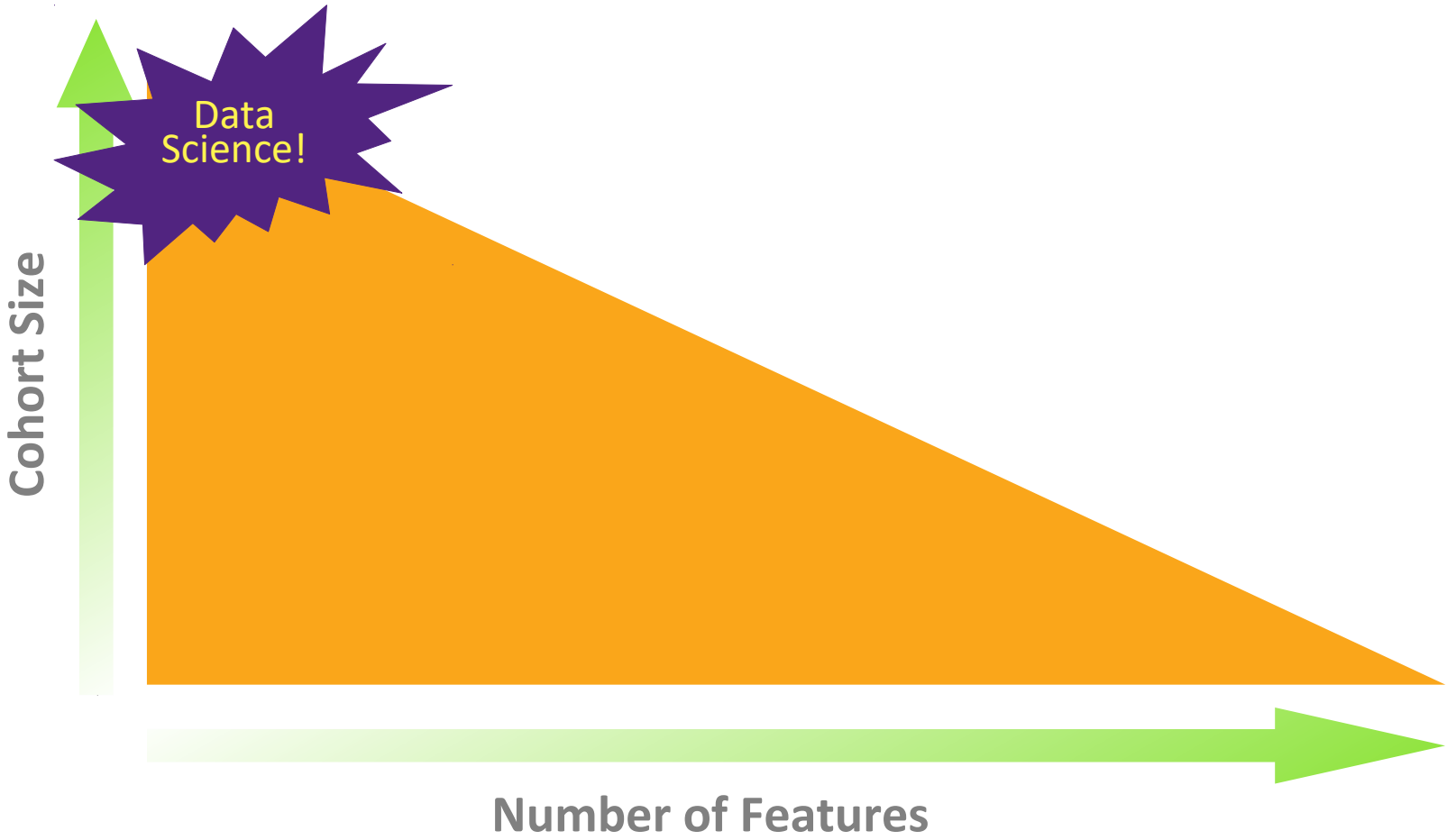
Personalized Medicine



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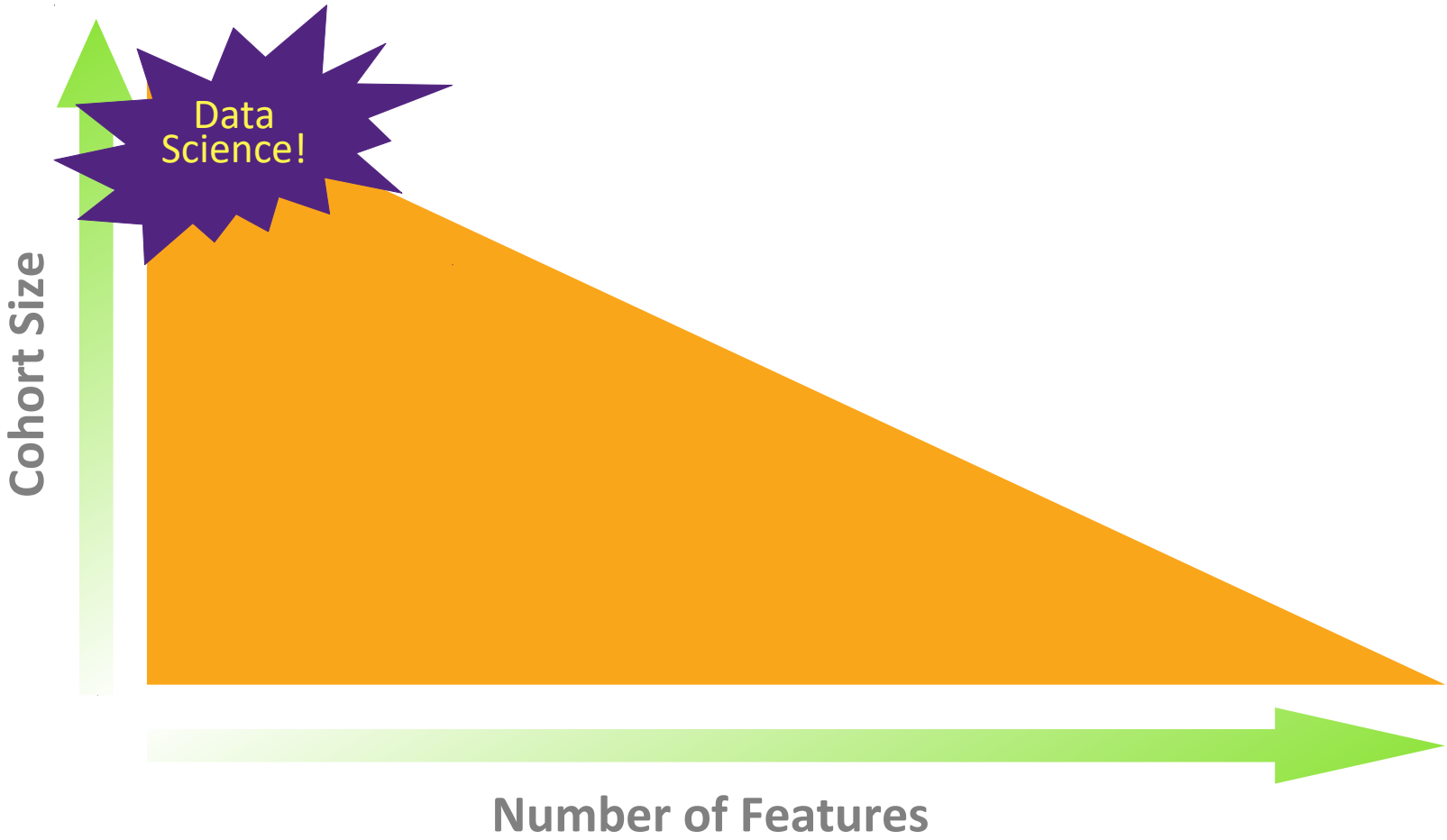
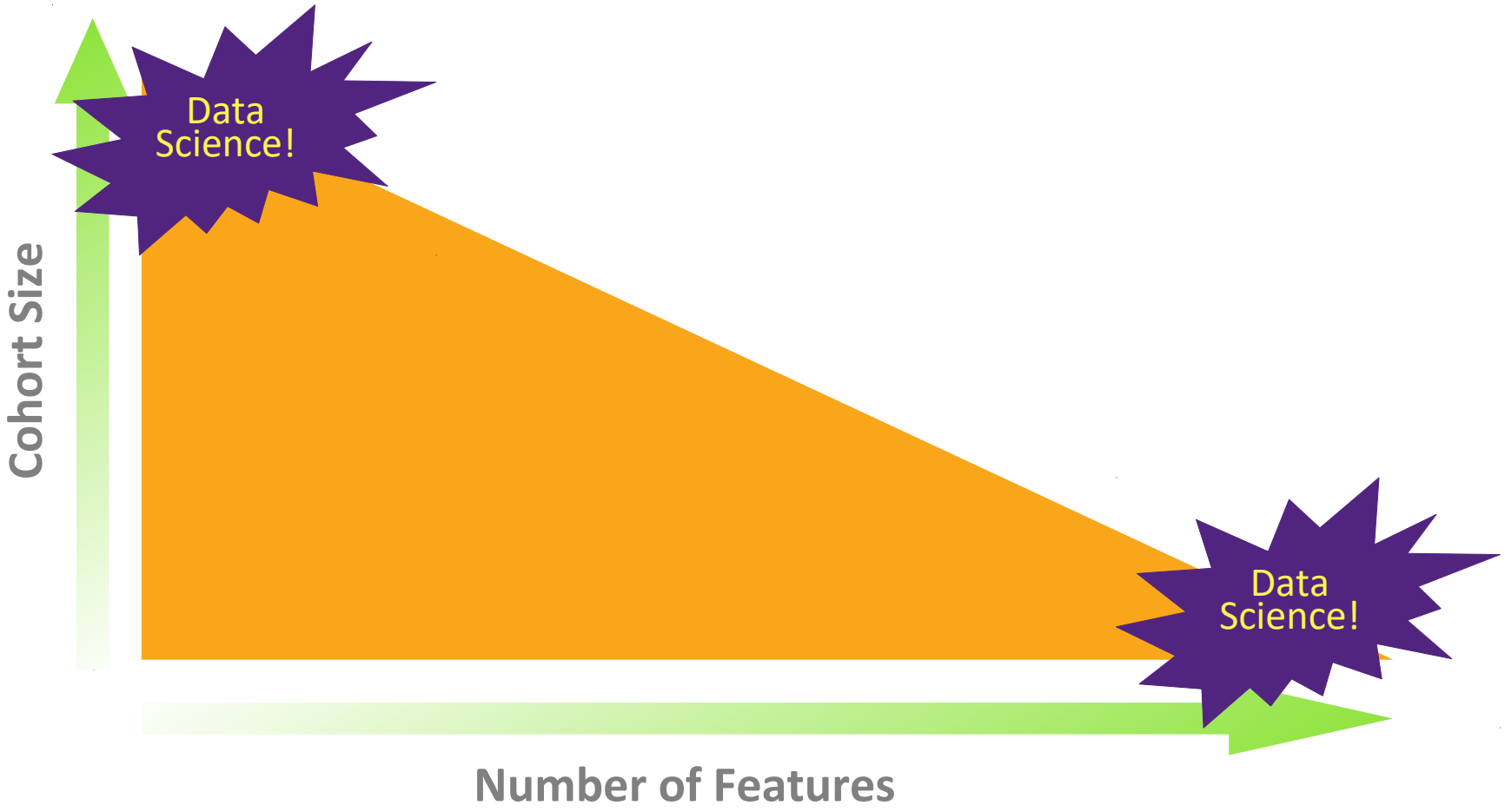


Evidence Based ⟷ Personalized Medicine



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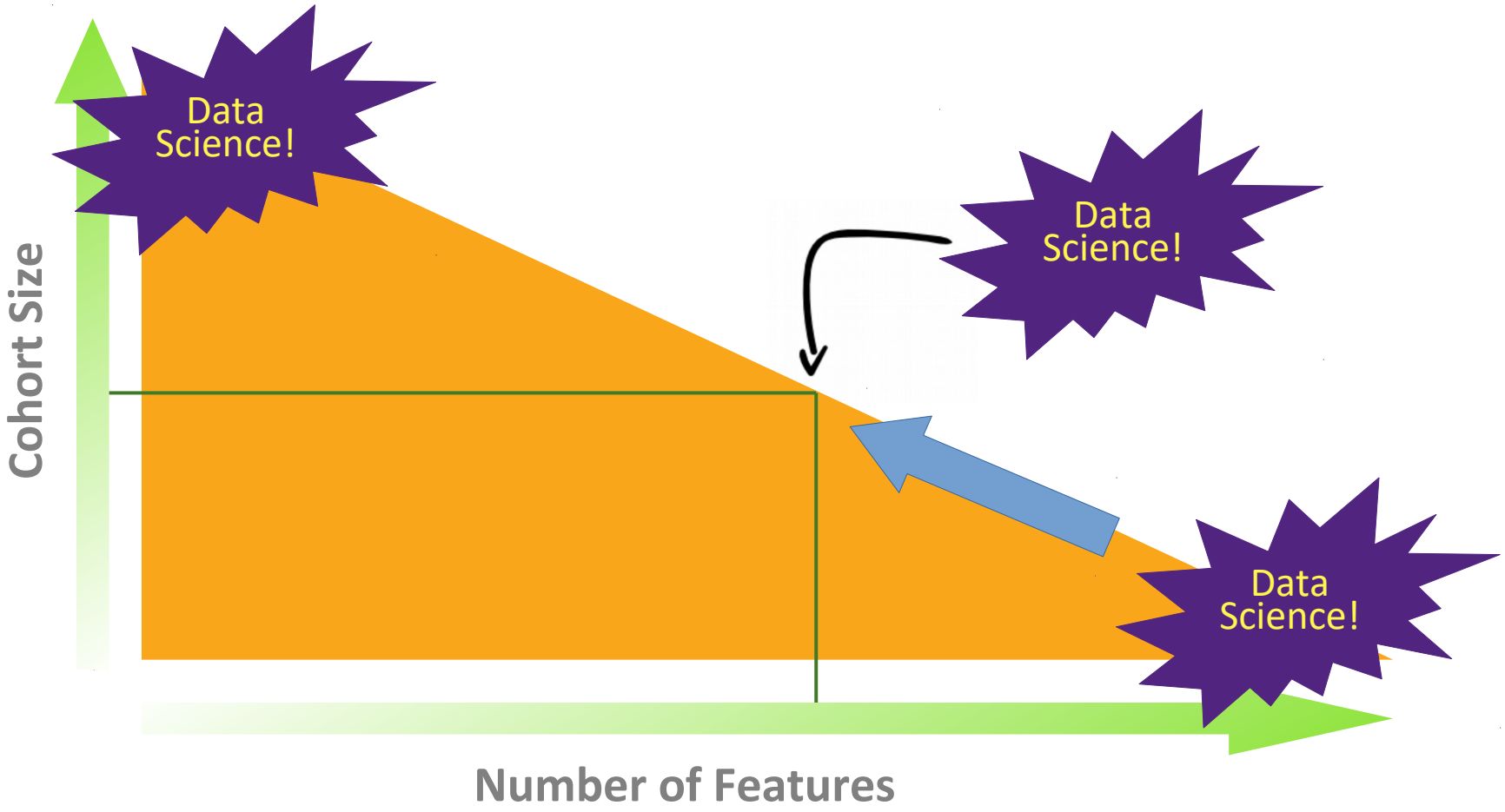

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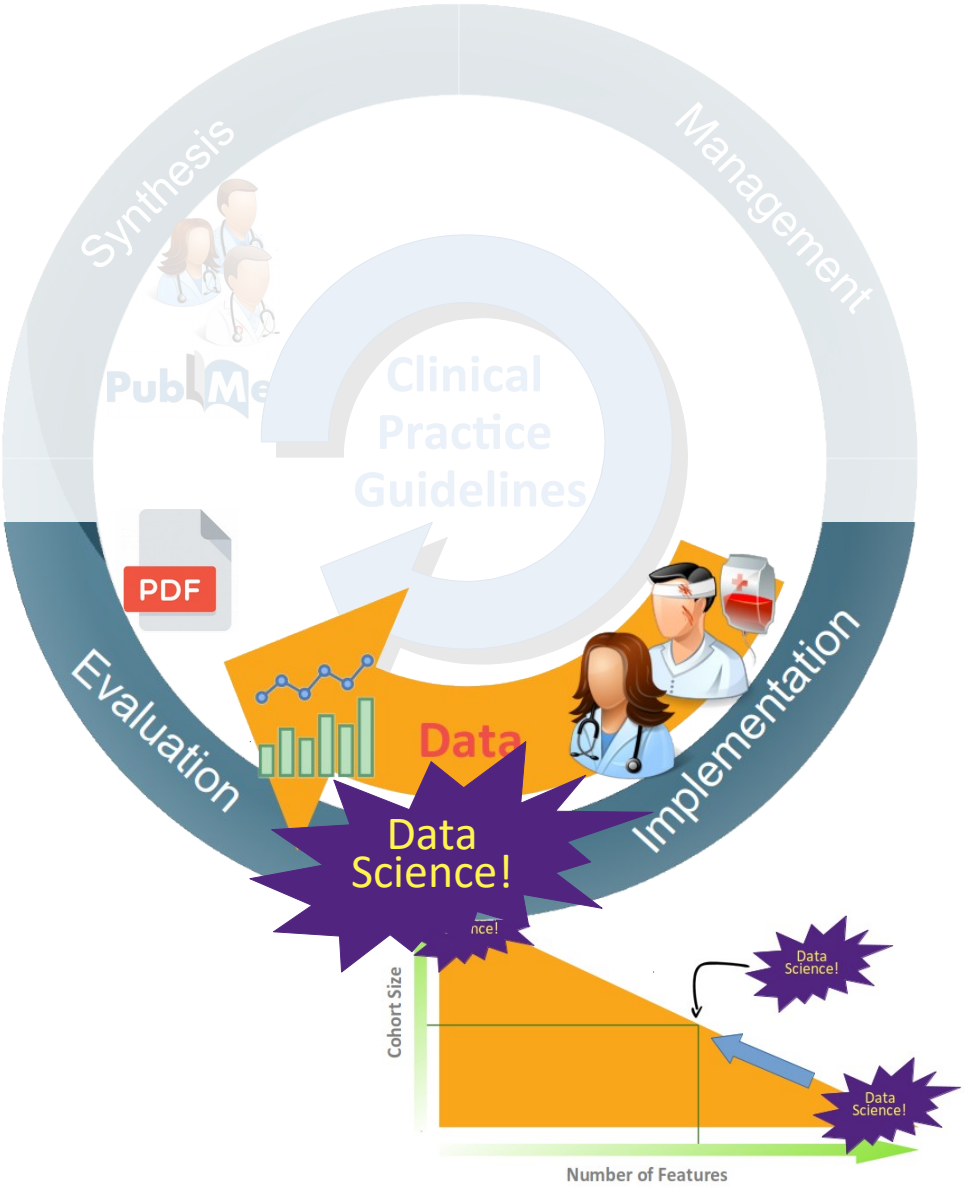
Synthesis
Management
Clinical
Practice
Guidelines
PDF
Evaluation
Implementation
Data
Data
Science!
Data
Science!
Cohort Size
Data
Science!
Number of Features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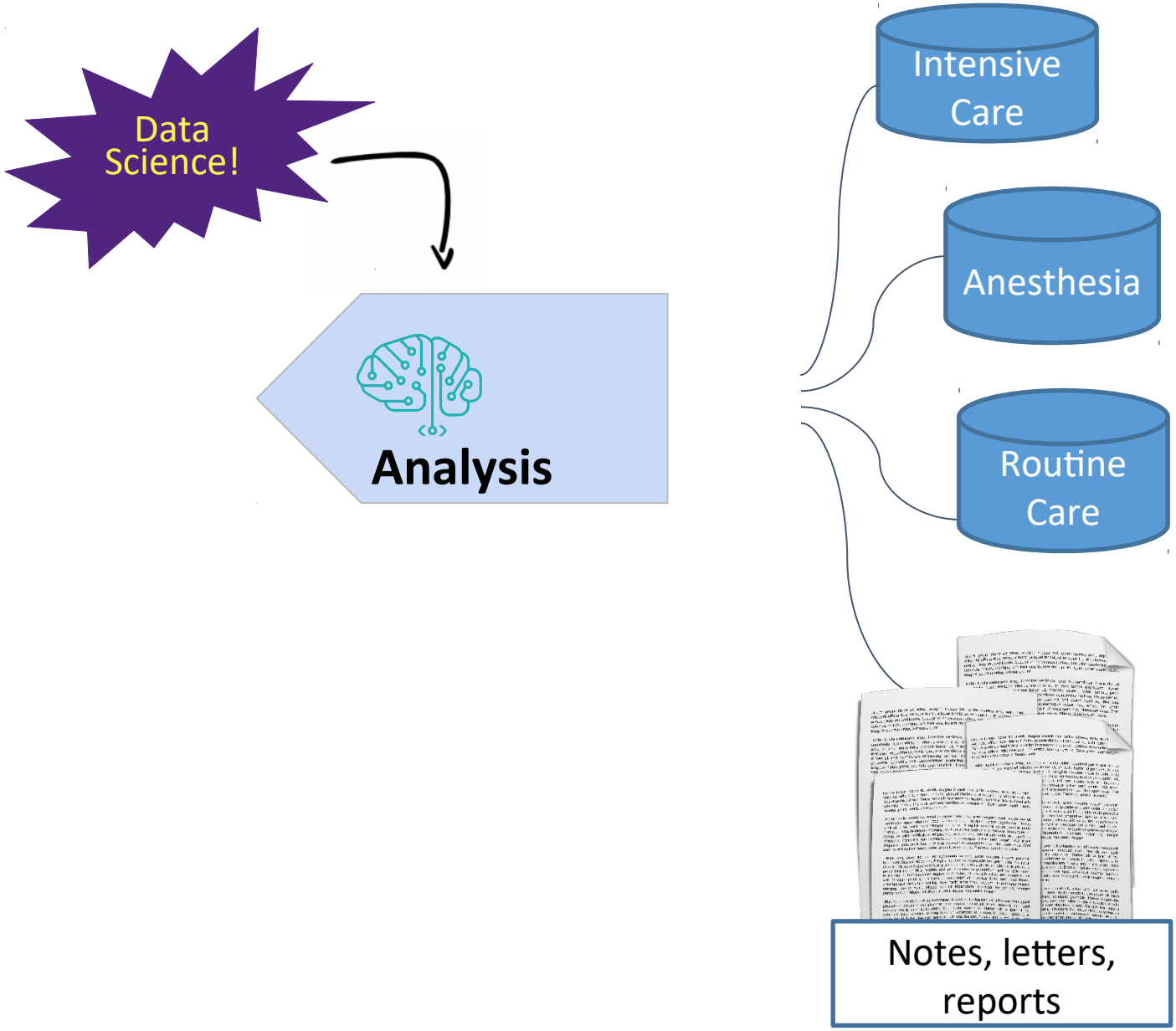
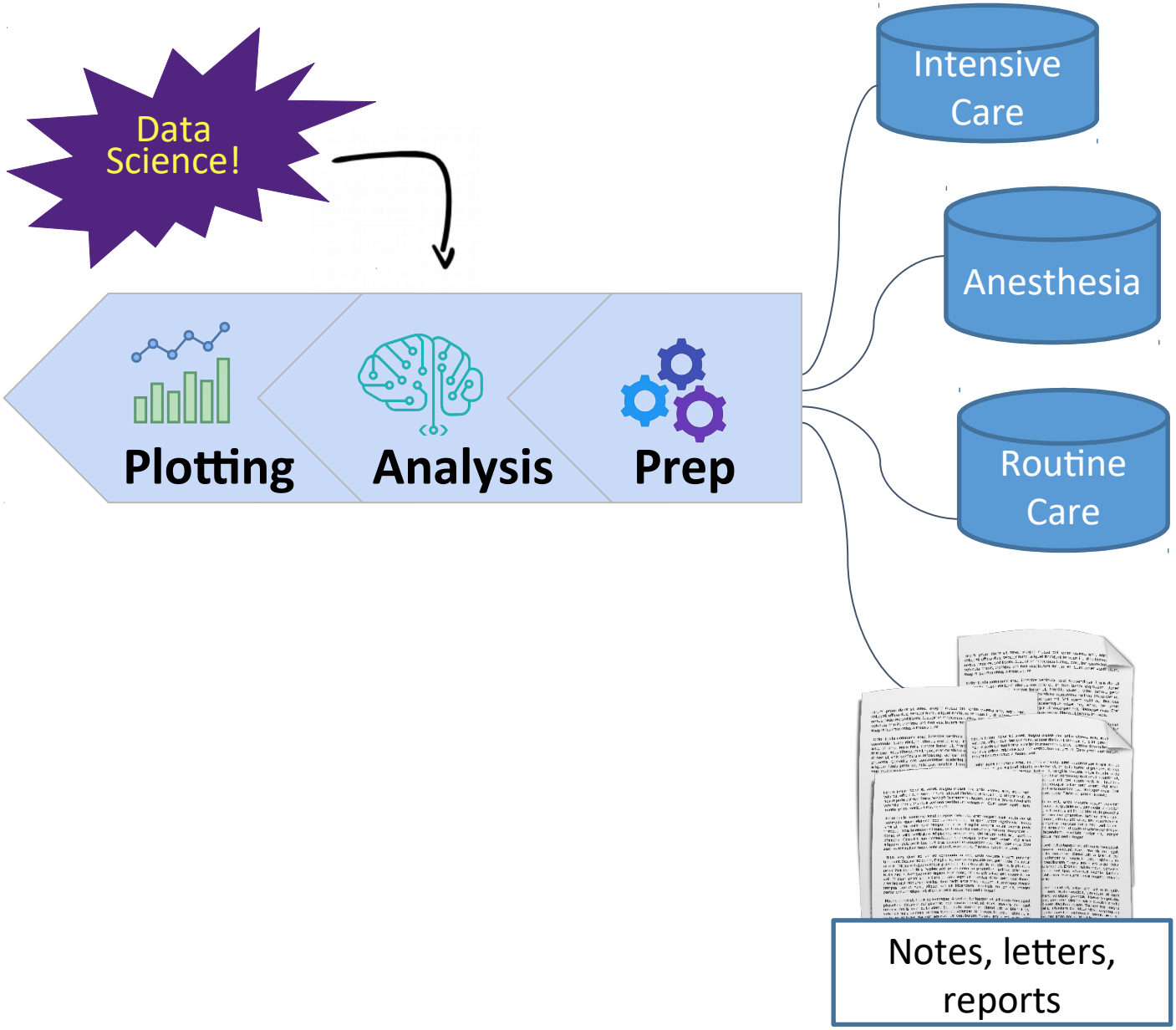

Data Science!
Analysis
Intensive Care
Anesthesia
Routine Care
Notes, letters, reports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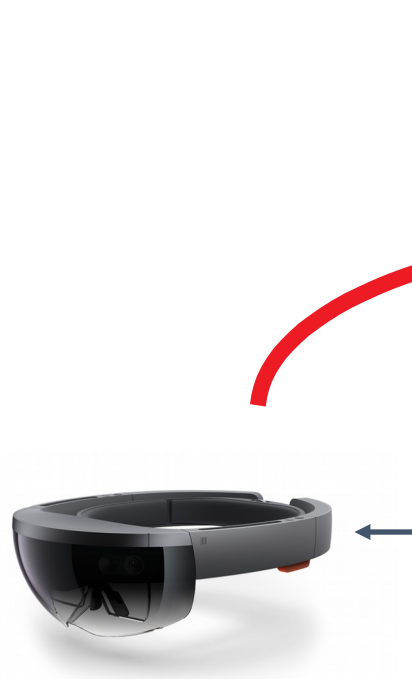

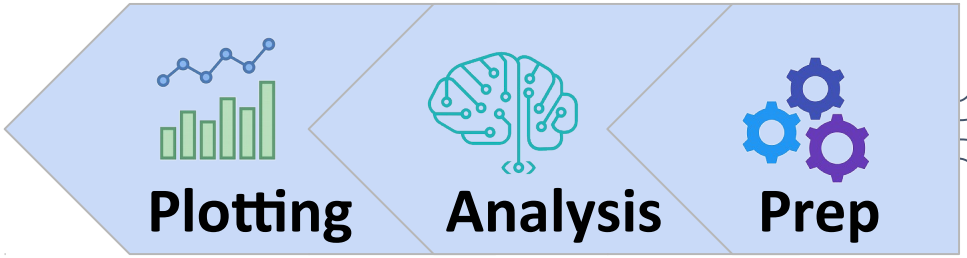

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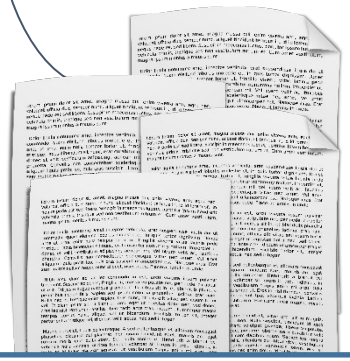

Notes, letters, reports

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Intensive Care

Anesthesia

Routine Care

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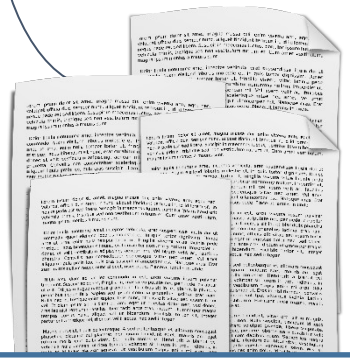

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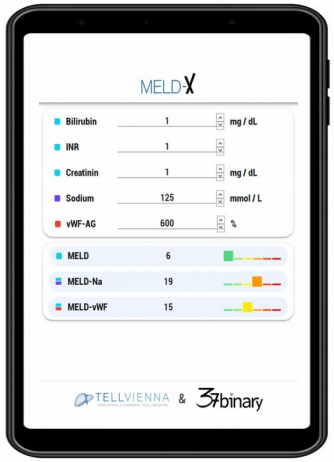

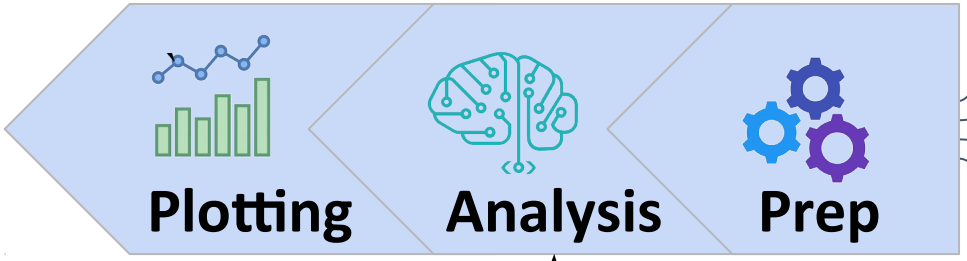

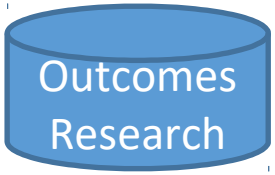

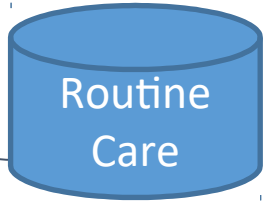

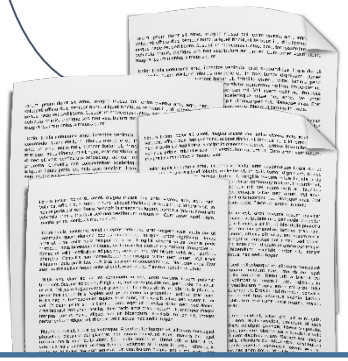

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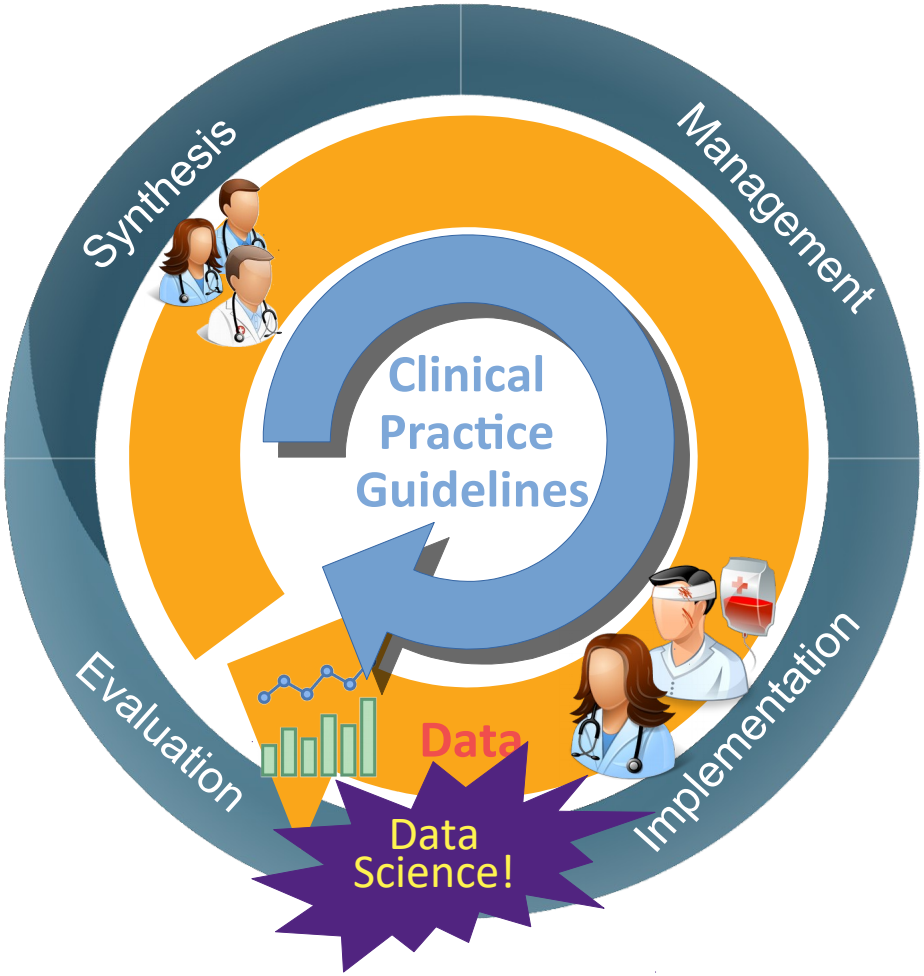
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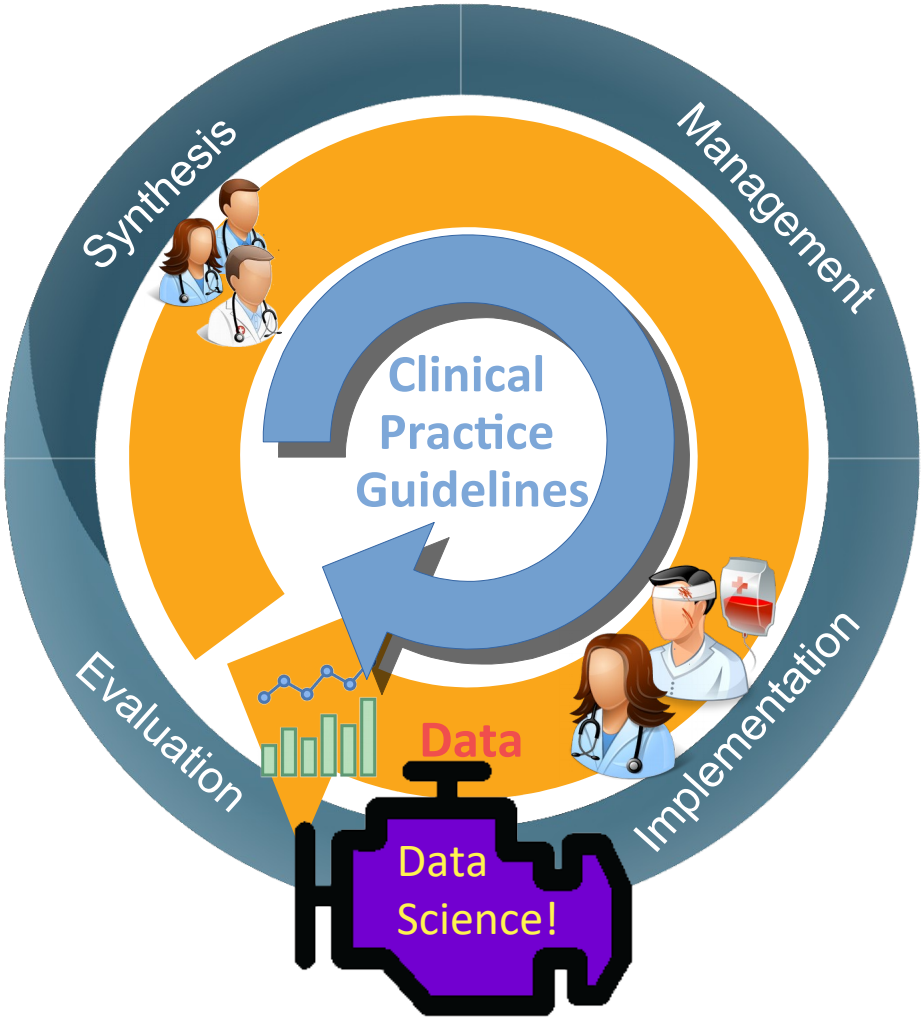
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