## Multimedia Appendix 1. Search strategy

### **Keywords**

- (1) Artificial intelligence (combine using OR)
  - artificial intelligence
  - machine learning
  - deep learning
- (2) Clinical implementation (combine using OR)
  - clinical
  - health
  - healthcare
  - medical
  - implement
  - implementation
  - deploy
  - deployment
  - adoption

### **PubMed (n=6830)**

Search query 1: ("artificial intelligence"[Title/Abstract] OR "machine learning"[Title/Abstract] OR "deep learning"[Title/Abstract]) **AND** ("clinical"[Title/Abstract] OR "health" [Title/Abstract] OR "healthcare" [Title/Abstract] OR "medical" [Title/Abstract] OR "implement" [Title/Abstract] OR "implementation" [Title/Abstract] OR "deploy"[Title/Abstract] OR "deployment"[Title/Abstract] OR "adoption"[Title/Abstract]) Filters: Full text, Journal Article, Humans, English, from 2010/1/1 - 2020/5/31 (n=8144)

Search query 2: ("artificial intelligence" [Title/Abstract] OR "machine learning"[Title/Abstract] OR "deep learning"[Title/Abstract]) **AND** ("clinical"[Title/Abstract] OR "health" [Title/Abstract] OR "healthcare" [Title/Abstract] OR "medical" [Title/Abstract] OR "implement" [Title/Abstract] OR "implementation" [Title/Abstract] OR "deploy"[Title/Abstract] OR "deployment"[Title/Abstract] OR "adoption"[Title/Abstract]) Filters: Full text, Bibliography, Biography, Books and Documents, Clinical Conference, Clinical Trial Protocol, Comment, Electronic Supplementary Materials, English Abstract, Meta-Analysis, Newspaper Article, Review, Systematic Review, Humans, English, from 2010/1/1 - 2020/5/31 (n=1347)

Search query 1 – search query 2

# **CINAHL** (n=839)

TI ( ("artificial intelligence" OR "machine learning" OR "deep learning") AND ("clinical" OR "health" OR "healthcare" OR "medical" OR "implement" OR "implementation" OR "deploy" OR "deployment" OR "adoption") ) OR AB ( ("artificial intelligence" OR "machine learning" OR "deep learning") AND ("clinical" OR "health" OR "healthcare" OR "medical" OR "implement" OR "implementation" OR "deploy" OR "deployment" OR "adoption") ) OR MW ( ("artificial intelligence" OR "machine learning" OR "deep learning") AND ("clinical" OR "health" OR "healthcare" OR "medical" OR "implement" OR "implementation" OR "deploy" OR "deployment" OR "adoption") )

Limiters - Full Text; Published Date: 20100101-20200531

Expanders - Apply equivalent subjects

Narrow by Language: - english Search modes - Boolean/Phrase

#### **Embase (n=9124)**

(('artificial intelligence':ti,ab,kw OR 'machine learning':ti,ab,kw OR 'deep learning':ti,ab,kw) AND ('clinical':ti,ab,kw OR 'health':ti,ab,kw OR 'healthcare':ti,ab,kw OR 'medical':ti,ab,kw OR 'implement':ti,ab,kw OR 'implementation':ti,ab,kw OR 'deploy':ti,ab,kw OR 'deployment':ti,ab,kw OR adoption:ti,ab,kw) AND [humans]/lim AND [1-1-2010]/sd NOT [1-6-2020]/sd AND [article]/lim AND [english]/lim) AND 'article'/it

### **Cochrane Central (n=1152)**

"artificial intelligence" OR "machine learning" OR "deep learning" in Title Abstract Keyword

Added Date: 20100101-20200531

## List of premium computer science journals and conferences

- Artificial Intelligence
- IEEE Transactions on Pattern Analysis and Machine Intelligence
- IEEE Transactions on Image Processing
- IEEE Transactions on Neural Networks
- International Journal of Computer Vision
- Journal of AI Research
- Journal of Machine Learning Research
- Neural Computation
- Machine Learning
- American Association for AI National Conference (AAAI)
- Annual Meeting of the Association of Computational Linguistics (ACL)
- Annual Conference on Neural Information Processing Systems (NeurIPS)
- Conference on Uncertainty in AI (UAI)
- Empirical Methods in Natural Language Processing (EMNLP)
- Knowledge Discovery and Data Mining (KDD)
- IEEE Conference on Computer Vision and Pattern Recognition (CVPR)
- International Conference on Computer Vision (ICCV)
- International Conference on Machine Learning (ICML)
- International Conference on the Principles of Knowledge Representation and Reasoning (KR)
- International Joint Conference on Artificial Intelligence (IJCAI)
- Robotics: Science & Systems (RSS)