

### Literature Review Search Details

The literature review entailed a focused search for the clinical priority area (e.g., low back pain and imaging) for composite reviews (e.g., critical reviews, umbrella reviews, meta-analyses, systematic reviews) as well as guidelines in MEDLINE (via PubMed) and evidence-based medicine resources such as the Cochrane Database of Systematic Reviews, DynaMed, UpToDate, and TRIP.

The medical librarian conducted the searches, documented them, and ensured their reproducibility. The search strategy is included below.

1. MEDLINE (via PubMed) Search

Database: MEDLINE (via PubMed)

Search date: 5/8/2021

Search Set	Search Strategy	Results
#1 <i>Focused LBP terms</i>	"Low Back Pain"[Mesh] OR "low back pain"[tiab] OR "lowback pain"[tiab] OR "lower back pain"[tiab] OR "lumbar pain"[tiab] OR "lumbar radiculopathy"[tiab]	40,205
#2 <i>Imaging terms</i>	"Diagnostic imaging"[Mesh] OR imaging[ti] OR "diagnostic imaging"[tiab] OR MRI[tiab] OR "magnetic resonance"[tiab] OR "nuclear medicine"[tiab] OR radiograph[tiab] OR radiographs[tiab] OR radiographic[tiab] OR radiography[tiab] OR scintigraphy[tiab] OR scintigraphic[tiab] OR tomography[tiab] OR tomographies[tiab] OR tomographic[tiab] OR "CT lumbar"[tiab] OR "CT scan"[tiab] OR "CT scans"[tiab] OR SPECT[tiab] OR "SPECT/CT"[tiab] OR "SPECT-CT"[tiab] OR "CAT scan"[tiab] OR "CAT scans"[tiab] OR "PET scan"[tiab] OR "PET scans"[tiab] OR "positron emission"[tiab] OR "bone scan"[tiab] OR "bone scans"[tiab] OR technetium-99m[tiab] OR myelography[tiab] OR myelographies[tiab] OR myelographic[tiab] OR myelogram[tiab] OR myelograms[tiab] OR xray[tiab] OR xrays[tiab] OR "x-ray"[tiab] OR "x-rays"[tiab] OR ("red flag"[tiab] OR "red flags"[tiab]) AND (screen[tiab] OR screening[tiab] OR detection[tiab] OR diagnosis[tiab]) OR diagnosis[ti]	3,733,049
#3 <i>Study designs</i>	"Meta-Analysis"[pt] OR "Systematic Review"[pt] OR "Practice Guideline"[pt] OR "Practice Guidelines as Topic"[Mesh] OR meta-analysis[ti] OR "meta analysis"[ti] OR "systematic review"[ti] OR "systematic reviews"[ti] OR "umbrella review"[ti] OR "umbrella reviews"[ti] OR "critical review"[ti] OR "critical reviews"[ti] OR guideline[ti] OR guidelines[ti] OR consensus[ti]	498,464
#4 <i>Combining</i>	#1 AND #2 AND #3	310
#5 <i>Study design exclusions</i>	#4 NOT (Editorial[pt] OR Letter[pt] OR Case Reports[pt] OR Comment[pt])	288
#6	#5 NOT (animals[mh] NOT humans[mh])	288

<i>Animal-only study exclusion</i>		
#7 pediatric-only study exclusion	#6 NOT (("Child"[Mesh] OR "Infant"[Mesh]) NOT "Adult"[Mesh])	286
#8 language limit	#7 AND English[lang]	258
#9 <i>Last 30 yrs</i>	#8 AND ("1990/01/01"[Date - MeSH] : "3000"[Date - MeSH])	255

## 2. Pre-Appraised Evidence-Based Practice Resources + Exemplar Articles

- a. Search strategy for evidence-based medicine resources (Cochrane Database of Systematic Reviews, UpToDate, DynaMed, TRIP): low back pain
  - i. Guidelines and pertinent review articles were identified and added (n=2)
- b. Several exemplar articles were identified by faculty. Those not captured by the MEDLINE (via PubMed) search (n=3) were included in the final result set.
- c. Reference lists of exemplar reviews were examined; 19 additional studies were found and added to the final result set.

### Final Set of Included Articles

Studies identified from MEDLINE (via PubMed): 255

Exemplars not captured in MEDLINE (via PubMed) search: 3

New studies identified from reviewing the exemplar reviews: 19

New studies identified from evidence-based medicine resources: 2

Total number of citations uploaded to Covidence: 279

Articles were uploaded to [Covidence, a systematic review screening software](#) (a subscription resource paid for by the Duke Medical Center Library & Archives).

All team members were invited to their own team's Covidence project to complete article screening. Covidence has two screening phases: Title/Abstract and Full-Text. Articles were reviewed by members of the multidisciplinary teams in duplicate during two phases of blinded, independent screening (title/abstract review, followed by full-text article review of a smaller subset of articles). Conflicts were resolved at the end of each phase of screening – either by a third reviewer or through team consensus/discussion.