Appendix Table A1. Search Strategy

MEDLINE: 301	**EMBASE:** 507	**PUBMED:** 345
Strategy: 1. Ulnar Collateral Ligament.mp. or Collateral Ligament, Ulnar/ 2. Medial Ulnar Collateral Ligament.mp. 3. Medial Collateral Ligament.mp. 4. UCL.mp. 5. Internal Lateral Ligament.mp. 6. Tommy John.mp. 7. Performance.mp. 8. Pitching.mp. 9. Pitch.mp. 10. Return to Play.mp. 11. Return to Sport.mp. or Return to Sport/ 12. Athlete.mp. or Athletes/ 13. 1 or 2 or 3 or 4 or 5 or 6 14. 7 or 8 or 9 or 10 or 11 or 12 15. 13 and 14 16. limit 15 to (English language and humans)	**Strategy:** 1. Ulnar Collateral Ligament.mp. or Ulnar Collateral Ligament/ 2. Medial Ulnar Collateral Ligament.mp. 3. Medial Collateral Ligament.mp. or Medial Collateral Ligament/ 4. UCL.mp. 5. Internal Lateral Ligament.mp. 6. Tommy John.mp. or Tommy John surgery/ 7. Performance.mp. or Athletic Performance/ or Performance/ 8. Pitching.mp. 9. Pitch.mp. or Pitch/ 10. Return to Play.mp. 11. Return to Sport.mp. or Return to Sport/ 12. Athlete/ or Athlete.mp. 13. 1 or 2 or 3 or 4 or 5 or 6 14. 7 or 8 or 9 or 10 or 11 or 12 15. 13 and 14 16. limit 15 to (human and English language	**Strategy:** ((ulnar collateral ligament) OR (Medial Ulnar Collateral Ligament) OR (Medial collateral Ligament) OR (UCL) OR (internal lateral Ligament) OR (Tommy John)) AND ((Performance) OR (Pitching) OR (pitch) OR (Return to play) OR (return to sport) OR (athlete)) AND (Elbow)

Appendix Table A2. Characteristics of Included Studies

Primary author	Year	Study design (level of evidence)	Total Sample Size	Pitchers undergoing UCLR	Sample Size Control	% Male – UCLR	Mean Age (Range) – UCLR	Mean Follow-up (months)	Consensus MINORS score*
Chalmers et al[3]	2016	Retrospective Case Control (III)	1327	309	1018	100	26.7 (26 to 27.3)	NR	12/24
Dugas et al[8]	2012	Retrospective Cohort (III)	120[a]	120	NA	NR	21.7 ± 4.5	33.4 ± 10.2	13/16
Erickson et al[9]	2016	Case Series (IV)	187	74	NA	92	NR	Minimum 18	11/16
Erickson et al[11]	2014	Retrospective Cohort (III)	358	179	179	100	28.4 ± 4.30	Minimum 18	20/24
Fleisig et al[13]	2015	Biomechanical study (N/A)	77	39	38	100	23.4 ± 1.9	30.5 (range 10.8 - 46.6)	17/24
Gibson et al[15]	2007	Retrospective Cohort (III)	180	68	112	100	28.2 ± 0.4 (22-42)	51.6 (range 24 - 96)	17/24
Jiang et al[18]	2014	Retrospective Cohort (III)	56	28	28	100	28 ± 4 (21-37)	NR	16/24
Keller et al[22]	2017	Retrospective Cohort (III)	165	137	28	100	27.2 ± 3.0	NR	14/24
Keller et al[21]	2016	Retrospective Case-Control (III)	166	83	83	100	28 ± 4.22	NR	17/24
Keller et al[23]	2014	Retrospective Case-Control (III)	346	168	178	100	26.3 ± 4.8	NR	16/24
Lansdown et al[25]	2014	Case Series (IV)	80	80	NA	100	29.2 ± 4.51 (22-48)	NR	10/16
Makhni et al[27]	2014	Retrospective Cohort (III)	339	147	192	100	28.2 (21-48)	NR	10/16
Portney et al[31]	2017	Retrospective Case-Control (III)	127	50	77	100	27.4 ± 3.9 (21-36)	NR	14/24
Wymore et al[34]	2016	Retrospective Cohort (III)	152	38	114	100	21.8 ± 1.2	NR	15/24

* - 0–16 for non-comparative studies, 0–24 for comparative studies
UCL – Ulnar collateral ligament, NA – Not applicable, NR – Not reported
[a] – both groups in the cohort underwent UCLR [b] – pitcher demographic data was not reported