The American Board of Orthopaedic Surgery
Web-Based Longitudinal Assessment
ABOS WLA

2020 Knowledge Sources
2020 ABOS Required Knowledge Source

1. Managing stress in the orthopaedic family: avoiding burnout, achieving resilience.

2019 ABOS Required Knowledge Source

1. Leading the Way to Solutions to the Opioid Epidemic: AOA Critical Issues.
   Seymour RB, Ring D, Higgins T, Hsu JR.

General Orthopaedics

1. Controversies in the management of distal radius fractures.
   Koval K, Haidukewych GJ, Service B, Zirgibel BJ.

   Sanders JO, Murray J, Gross L.

   Mundi R, Chaudhry H, Niroopan G, Petrisor B, Bhandari M.
   JBJS Rev. 2015 Feb 3;3(2).

   McGrory BJ, Weber KL, Jevsevar DS, Sevarino K.

5. Complications of shoulder arthroscopy.
   Moen TC, Rudolph GH, Caswell K, Espinoza C, Burkhead WZ Jr, Krishnan SG.

   Fowler J, Cipolli W, Hanson T.
7. Risk Factors and Predictors of Subsequent ACL Injury in Either Knee After ACL Reconstruction: Prospective Analysis of 2488 Primary ACL Reconstructions From the MOON Cohort.
   Kaeding C, Pedroza A, Reinke E, Huston L; MOON Consortium, Spindler K.

8. Is Cemented or Cementless Femoral Stem Fixation More Durable in Patients Older Than 75 Years of Age? A Comparison of the Best-performing Stems.
   Tanzer M, Graves S, Peng A, Shimmin A.

   Rammelt S, Boszczyk A.
   JBJS Rev. 2018 Dec;6(12):e7.

10. Degenerative Rotator Cuff Tears: Refining Surgical Indications Based on Natural History Data.
    Keener J, Patterson B, Orvets N, Chamberlain A.

    Agrawal Y, Smith R, Garbuz D, Masri B.

12. Tibial Shaft Fractures in Children and Adolescents.
    Raducha J, Swarup I, Schachne J, Cruz A, Fabricant P.

    Bawa H, Weick J, Dirschl D, Luu H.

    Pretell-Mazzini J, Barton M Jr, Conway S, Temple H.

15. Return to Play After Medial Collateral Ligament Injury.
    Kim C, Chasse P, Taylor D.
Adult Reconstruction

1. **The safety of tranexamic acid in total joint arthroplasty: a direct meta-analysis.**

2. **Low-Dose Aspirin Is Effective Chemoprophylaxis Against Clinically Important Venous Thromboembolism Following Total Joint Arthroplasty: A Preliminary Analysis.**
   Parvizi J, Huang R, Restrepo C, Chen AF, Austin MS, Hozack WJ, Lonner JH.

3. **Internal Fixation Compared with Total Hip Replacement for Displaced Femoral Neck Fractures: A Minimum Fifteen-Year Follow-up Study of a Previously Reported Randomized Trial.**
   Johansson T.

4. **Trunnionosis in Total Hip Arthroplasty.**
   Weiser MC, Lavernia CJ.

5. **Why are total knee arthroplasties failing today – has anything changed after 10 years?**
   Sharkey PF, Lichstein PM, Shen C, Tokarski AT, Parvizi J.
   J Arthroplasty. 2014 Sep;29(9):1774-1778.

6. **The John Insall Award: Morbid obesity independently impacts complications, mortality, and resource use after TKA.**
   D’Apuzzo M, Novicoff W, Browne J.

7. **Current modes of failure in TKA: infection, instability, and stiffness predominate.**
   Le D, Goodman S, Maloney W, Huddleston J.

8. **High rate of infection after aseptic revision of failed metal-on-metal total hip arthroplasty.**
   Wyles C, Van Demark R, Sierra R, Trousdale R.

9. **Revision Rates and Functional Outcome Scores for Severely, Morbidly, and Super-Obese Patients Undergoing Primary Total Hip Arthroplasty: A Systematic Review and Meta-Analysis.**
   Ponnusamy K, Somerville L, McCalden R, Marsh J, Vasarhelyi E.
   Dimitriou D, Ramokgopa M, Pietrzak J, van der Jagt D, Mokete L.
   JBJS Rev. 2017 Sep;5(9):e8.


    Cook D, Kaskovich S, Pirkle S, Mica M, Shi L, Lee M.

13. Mortality After Periprosthetic Femur Fractures During and After Primary and Revision Total Hip Arthroplasty.
    Kremers H, Abdel M, Ransom J, Larson D, Lewallen D, Berry D.

14. 2019 John Charnley Award: Increased risk of prosthetic joint infection following primary total knee and hip arthroplasty with the use of alternative antibiotics to cefazolin: the value of allergy testing for antibiotic prophylaxis.
    Wyles C, Hevesi M, Osmon D, Park M, Habermann E, Lewallen D, Berry D, Sierra R.

15. Peripheral Nerve Blocks for Surgery About the Knee.
    Howell R, Hill B, Hoffman C, Treacy E, Mulcahey M.
    JBJS Rev. 2016 Dec 6;4(12).
Foot and Ankle

1. **Contribution of Lateral Column Lengthening to Correction of Forefoot Abduction in Stage IIb Adult Acquired Flatfoot Deformity Reconstruction.**
   Chan JY, Greenfield ST, Soukup DS, Do HT, Deland JT, Ellis SJ.
   Foot Ankle Int. 2015 Dec;36(12):1400-1411.

2. **Shoe modification and the use of orthoses in the treatment of foot and ankle pathology.**
   Janisse DJ, Janisse E.

3. **Current concept review: vitamin D and stress fractures.**
   McCabe MP, Smyth MP, Richardson DR.

4. **Evidence-based analysis of the efficacy for operative treatment of hallux rigidus.**
   McNeil DS, Baumhauer JF, Glazebrook MA.

5. **Reoperation Rate Differences Between Open Reduction Internal Fixation and Primary Arthrodesis of Lisfranc Injuries.**
   Foot Ankle Int. 2018 Sep;39(9):1089-1096.

6. **Current management options for displaced intra-articular calcaneal fractures: Non-operative, ORIF, minimally invasive reduction and fixation or primary ORIF and subtalar arthrodesis. A contemporary review.**
   Sharr P, Mangupli M, Winson I, Buckley R.

7. **Chronic Disorders of the Peroneal Tendons: Current Concepts Review of the Literature**
   Van Dijk P, Kerkhoffs G, Chiodo C, DiGiovanni C.

8. **Comparison of Plantar Fasciitis Injected With Platelet-Rich Plasma vs Corticosteroids.**
   Jain S, Suprashant K, Kumar S, Yadav A, Kearns S.

9. **Current Concepts Review Update: Insertional Achilles Tendinopathy.**
   Chimenti R, Cychosz C, Hall M, Phisitkul P.
   Foot Ankle Int. 2017 Oct;38(10):1160-1169.
10. **Current Concepts Review Update: Osteochondral Lesions of the Talus.**
   Kraeutler M, Chahla J, Dean C, Mitchell J, Santini-Araujo M, Pinney S, Pascual-Garrido C.
   Foot Ankle Int. 2017 Mar;38(3):331-342.

11. **Fractures of the Talus: State of the Art.**
    Vallier H.
    J Orthop Trauma. 2015 Sep;29(9):385-92.

12. **Management of Bunionette Deformity.**
    Shi G, Humayun A, Whalen J, Kitaoka H.

13. **Minimally Invasive Versus Open Repair for Acute Achilles Tendon Rupture: Meta-Analysis Showing Reduced Complications, with Similar Outcomes, After Minimally Invasive Surgery.**

14. **Evaluation and Significance of Mortise Instability in Supination External Rotation Fibula Fractures: A Review Article.**
    Kwon J, Cronin P, Velasco B, Chiodo C.
    Foot Ankle Int. 2018 Jul;39(7):865-873.

15. **Dynamic Stabilization of Syndesmosis Injuries Reduces Complications and Reoperations as Compared With Screw Fixation: A Meta-analysis of Randomized Controlled Trials.**
Oncology

1. **Metastatic bone disease: diagnosis, evaluation, and treatment.**
   Biermann JS, Holt GE, Lewis VO, Schwartz HS, Yaszemski MJ.

2. **Survival of modern knee tumor megaprostheses: failures, functional results, and a comparative statistical analysis.**
   Pala E, Trovarelli G, Calabrò T, Angelini A, Abati CN, Ruggieri P.

3. **Bone sarcomas: an update of the recent literature.**
   Jones LB, Barr JS.

4. **Osteosarcoma: A Meta-Analysis and Review of the Literature.**
   Friebele JC, Peck J, Pan X, Abdel-Rasoul M, Mayerson JL.

5. **The effect of surgical synovectomy and radiotherapy on the rate of recurrence of pigmented villonodular synovitis of the knee: an individual patient meta-analysis.**
   Mollon B, Lee A, Busse JW, Griffin AM, Ferguson PC, Wunder JS, Theodoropoulos J.

6. **Is intralesional resection suitable for central grade 1 chondrosarcoma: A systematic review and updated meta-analysis.**
   Chen X, Yu L, Peng H, Jiang C, Ye C, Zhu S, Qian W.

7. **Positron emission tomography/computed tomography for osseous and soft tissue sarcomas: A systematic review of the literature and meta-analysis.**
   Muheremu A, Ma J, Amudong A, Ma Y, Niyazi M, Ou Y, Ma Y.

8. **Improved survival for extremity soft tissue sarcoma treated in high-volume facilities.**
   Abarca T, Gao Y, Monga V, Tanas M, Milhem M, Miller B.

   Wilke B, Cooper A, Scarborough M, Gibbs C, Spiguel A.
10. Denosumab May Increase the Risk of Local Recurrence in Patients with Giant-Cell Tumor of Bone Treated with Curettage.

11. Thromboembolism After Intramedullary Nailing for Metastatic Bone Lesions.

    O’Carrigan B, Wong M, Willson M, Stockler M, Pavlakis N, Goodwin A.

    Salunke A, Chen Y, Tan J, Chen X, Khin L, Puhaindran M.

14. What are the 5-year survivorship outcomes of compressive endoprosthetic osseointegration fixation of the femur?
    Monument M, Bernthal N, Bowles A, Jones K, Randall R.

Orthopaedic Sports Medicine

   Soroceanu A, Sidhwa F, Aarabi S, Kaufman A, Glazebrook M.

2. A Randomized Clinical Trial Comparing Open and Arthroscopic Stabilization for Recurrent Traumatic Anterior Shoulder Instability Two-Year Follow-up with Disease-Specific Quality-of-Life Outcomes.
   Mohtadi NG, Chan DS, Hollinshead RM, Boorman RS, Hiemstra LA, Lo IK, Hannaford HN, Fredine J, Sasyniuk TM, Paolucci EO.


   Ciccotti MC, Secrist E, Tjoumakaris F, Ciccotti MG, Freedman KB.

5. Effect of Graft Choice on the Outcome of Revision Anterior Cruciate Ligament Reconstruction in the Multicenter ACL Revision Study (MARS) Cohort.
   MARS Group.


   Fitzpatrick J, Bulsara M, Zheng M.
8. **Injections Prior to Rotator Cuff Repair Are Associated With Increased Rotator Cuff Revision Rates.**

9. **Surgical versus non-surgical interventions for treating patellar dislocation.**

10. **Predictors and Outcomes of Crossover to Surgery from Physical Therapy for Meniscal Tear and Osteoarthritis: A Randomized Trial Comparing Physical Therapy and Surgery.**

11. **Jones Fractures: Pathophysiology and Treatment.**

12. **Major complications after distal biceps tendon repairs: retrospective cohort analysis of 970 cases.**

13. **Rehabilitation following arthroscopic rotator cuff repair: a prospective randomized trial of immobilization compared with early motion.**


15. **Evaluation, Treatment, and Outcomes of Meniscal Root Tears: A Critical Analysis Review.**
Orthopaedic Trauma

1. **Injuries to the ankle syndesmosis.**
   Van Heest TJ, Lafferty PM.

2. **Controversies in the Intramedullary Nailing of Proximal and Distal Tibia Fracture.**
   Tejwani N, Polonet D, Wolinsky PR.

3. **Chemoprophylaxis for Venous Thromboembolism in Operative Treatment of Fractures of the Tibia and Distal Bones: A Systematic Review and Meta-analysis.**
   Patterson JT, Morshed S.
   J Orthop Trauma. 2017 Sep;31(9):453-460.

4. **Early Weightbearing and Range of Motion Versus Non-Weightbearing and Immobilization After Open Reduction and Internal Fixation of Unstable Ankle Fractures: A Randomized Controlled Trial.**

5. **Fracture fixation in the operative management of hip fractures (FAITH): an international, multicentre, randomized controlled trial.**
   Fixation using Alternative Implants for the Treatment of Hip fractures (FAITH) Investigators.

   Adopted by the American Academy of Orthopaedic Surgeons Board of Directors.
   September 5, 2014.

7. **Controversies in Intramedullary Fixation for Intertrochanteric Hip Fractures.**
   Baldwin P, Lavender R, Sanders R, Koval K.

8. **Screw Fixation Versus Hemiarthroplasty for Nondisplaced Femoral Neck Fractures in Elderly Patients. A Multicenter Randomized Controlled Trial.**
9. **Plate Fixation Compared with Nonoperative Treatment for Displaced Midshaft Clavicular Fractures: A Multicenter Randomized Controlled Trial.**

10. **Plate Versus Tension-Band Wire Fixation for Olecranon Fractures: A Prospective Randomized Trial.**
    Duckworth A, Clement N, White T, Court-Brown C, McQueen M.

11. **Does Removal of the Symphyseal Cartilage in Symphyseal Dislocations Have Any Effect on Final Alignment and Implant Failure?**

12. **Risk Factors for Conversion to Total Hip Arthroplasty After Acetabular Fractures Involving the Posterior Wall.**
    Firoozabadi R, Hamilton B, Toogood P, Routt MC, Shearer D.

13. **Risk of Total Knee Arthroplasty After Operatively Treated Tibial Plateau Fracture: A Matched-Population-Based Cohort Study.**
    Wasserstein D, Henry P, Paterson J, Kreder H, Jenkinson R.

14. **Assessment of resuscitation as measured by markers of metabolic acidosis and features of injury.**
    Weinberg D, Narayanan A, Moore T, Vallier H.

15. **Clinical Practice Guidelines for Pain Management in Acute Musculoskeletal Injury.**
    Hsu J, Mir H, Wally M, Seymour R; Orthopaedic Trauma Association Musculoskeletal Pain Task Force.
Pediatric Orthopaedics

1. **Management of ACL Injuries in Children and Adolescents.**
   Fabricant PD, Kocher MS.

2. **A comparison of two approaches for the closed treatment of low-energy tibial fractures in children.**
   Silva M, Eagan MJ, Wong MA, Dichter DH, Ebramzadeh E, Zions LE.

3. **Imaging Pediatric Spondylolysis: A Systematic Review.**
   Tofte JN, CarlLee TL, Holte AJ, Sitton SE, Weinstein SL.

4. **Pediatric Acute Compartment Syndrome.**
   Livingston KS, Glotzbecker MP, Shore BJ.

5. **Management of the pulseless pediatric supracondylar humeral fracture.**
   Badkoobehi H, Choi PD, Bae DS, Skaggs DL.

6. **Operative Repair of Medial Patellofemoral Ligament Injury Versus Knee Brace in Children With an Acute First-Time Traumatic Patellar Dislocation: A Randomized Controlled Trial.**
   Askenberger M, Bengtsson Moström E, Ekström W, Arendt EA, Hellsten A, Mikkelsen C, Janarv P.

7. **Timing of Epiphysiodesis to Correct Leg-Length Discrepancy: A Comparison of Prediction Methods.**
   Makarov M, Jackson T, Smith C, Jo C, Birch J.

8. **Ponte Osteotomies Increase the Risk of Neuromonitoring Alerts in Adolescent Idiopathic Scoliosis Correction Surgery.**

9. **Management of Pediatric Tibial Shaft Fractures.**
   Hogue G, Wilkins K, Kim I.
Maranho D, Ferrer M, Kim Y, Miller PE, Novais E.

Kocher M, Heyworth B, Fabricant P, Tepolt F, Micheli L.

12. Anterior Spinal Growth Tethering for Skeletally Immature Patients with Scoliosis: A Retrospective Look Two to Four Years Postoperatively.

Pennock A, Bomar J, Johnson K, Randich K, Upasani V.

14. Lack of Benefit of Physical Therapy on Function Following Supracondylar Humeral Fracture: A Randomized Controlled Trial.
Schmale G, Mazor S, Mercer L, Bompadre V.

Shoulder and Elbow

1. A Prospective Evaluation of Survivorship of Asymptomatic Degenerative Rotator Cuff Tears.


3. Intra-articular injection, subacromial injection, and hydrodilatation for primary frozen shoulder: a randomized clinical trial.

4. Arthroscopic Repair of Full-Thickness Rotator Cuff Tears With and Without acromioplasty: Randomized Prospective Trial With 2-Year Follow-up.

5. Propionibacterium in Shoulder Arthroplasty: What We Think We Know Today.
   Hsu JE, Bumgarner RE, Matsen FA 3rd.


7. The Timing of Injections Prior to Arthroscopic Rotator Cuff Repair Impacts the Risk of Surgical Site Infection.
   Forsythe B, Agarwalla A, Puzzitiello RN, Sumner S, Romeo AA, Mascarenhas R.
8. **Neer Award 2018: Benzoyl peroxide effectively decreases preoperative Cutibacterium acnes shoulder burden: a prospective randomized controlled trial.**

9. **Neer Award 2018: the effect of preoperative education on opioid consumption in patients undergoing arthroscopic rotator cuff repair: a prospective, randomized clinical trial.**

10. **Comparison of lesser tuberosity osteotomy to subscapularis peel in shoulder arthroplasty: a randomized controlled trial.**
    Lapner P, Sabri E, Rakhra K, Bell K, Athwal G.

11. **Instability in Reverse Total Shoulder Arthroplasty.**
    Chae J, Siljander M, Wiater J.

12. **Arthroscopic distal clavicle resection in symptomatic acromioclavicular joint arthritis combined with rotator cuff tear: a prospective randomized trial.**
    Park Y, Koh K, Shon M, Park Y, Yoo J.

13. **Clinical and Radiographic Outcomes of a Posteriorly Augmented Glenoid Component in Anatomic Total Shoulder Arthroplasty for Primary Osteoarthritis with Posterior Glenoid Bone Loss.**

14. **Reoperation Rates and Costs of Radial Head Arthroplasty Versus Open Reduction and Internal Fixation of Radial Head and Neck Fractures: A Retrospective Database Study.**
    Reinhardt D, Toby EB, Brubacher J.

15. **A Prospective Evaluation of Early Postoperative Complications After Distal Biceps Tendon Repairs.**
1. **Risk factors and pharmacologic prophylaxis for venous thromboembolism in elective spine surgery.**
   McLynn RP, Diaz-Collado PJ, Ottesen TD, Ondeeck NT, Cui JJ, Bovonratwet P, Shultz BN, Grauer JN.

2. **Long-Term Results of Surgery Compared with Nonoperative Treatment for Lumbar Degenerative Spondylolisthesis in the Spine Patient Outcomes Research Trial (SPORT).**
   Abdu WA, Sacks OA, Tosteson ANA, Zhao W, Tosteson TD, Morgan TS, Pearson A, Weinstein JN, Lurie JD.

3. **Efficacy and safety of surgical decompression in patients with cervical spondylotic myelopathy: results of the AOSpine North America prospective multi-center study.**

4. **Early versus delayed decompression for traumatic cervical spinal cord injury: results of the Surgical Timing in Acute Spinal Cord Injury Study (STASCIS).**

5. **Guideline summary review: An evidence-based clinical guideline for the diagnosis and treatment of degenerative lumbar spondylolisthesis.**

6. **Role of Weekly Teriparatide Administration in Osseous Union Enhancement within Six Months After Posterior or Transforaminal Lumbar Interbody Fusion for Osteoporosis-Associated Lumbar Degenerative Disorders: A Multicenter, Prospective Randomized Study.**
7. **Assessing the utility of a clinical prediction score regarding 30-day morbidity and mortality following metastatic spinal surgery: the New England Spinal Metastasis Score (NESMS).**
   Schoenfeld A, Le H, Marjoua Y, Leonard D, Belmont P Jr, Bono C, Harris M.

8. **Operative Versus Nonoperative Treatment for Adult Symptomatic Lumbar Scoliosis.**

9. **Does intrawound vancomycin powder reduce surgical site infection after posterior instrumented spinal surgery? A propensity score-matched analysis.**

10. **Blood-loss Management in Spine Surgery.**
    Bible J, Mirza M, Knaub M.

    Patel A, Dodwad S, Boody B, Bhatt S, Savage J, Hsu W, Rothrock N.

12. **Preoperative Opioid Use as a Predictor of Adverse Postoperative Self-Reported Outcomes in Patients Undergoing Spine Surgery.**

13. **Efficacy, safety, and economics of bracing after spine surgery: a systematic review of the literature.**
    Spine J. 2018 Sep;18(9):1513-1525.

14. **Efficacy of tranexamic acid on surgical bleeding in spine surgery: a meta-analysis.**
Surgery of the Hand


2. Cast immobilization with and without immobilization of the thumb for nondisplaced and minimally displaced scaphoid waist fractures: a multicenter, randomized, controlled trial.

3. Wrist ganglion treatment: systematic review and meta-analysis.
   Head L, Gencarelli JR, Allen M, Boyd KU.

   Wang K, Sears ED, Shauver MJ, Chung KC.

5. Trapeziometacarpal Arthrodesis or Trapeziectomy with Ligament Reconstruction in Primary Trapeziometacarpal Osteoarthritis: A Randomized Controlled Trial
   Vermeulen GM, Brink SM, Slijper H, Feitz R, Moojen TM, Hovius SE, Selles RW.

6. Pediatric Phalanx Fractures.
   Abzug J, Dua K, Bauer A, Cornwall R, Wyrick T.

7. Association Between Distal Radial Fracture Malunion and Patient-Reported Activity Limitations: A Long-Term Follow-up.

   Dy C.
   Ekrol I, Duckworth A, Ralston S, Court-Brown C, McQueen M.

10. Comparison of ultrasound and electrodiagnostic testing for diagnosis of carpal tunnel syndrome: study using a validated clinical tool as the reference standard.
    Fowler J, Munsch M, Tosti R, Hagberg W, Imbriglia J.

11. The impact of depression and pain catastrophization on initial presentation and treatment outcomes for atraumatic hand conditions.
    London D, Stepan J, Boyer M, Calfee R.

    Schmidt G, Pironov H, Chuang D, Gonzalez M.
    J Hand Surg Am. 2019 Feb;44(2):144-149.

13. Percutaneous Needle Fasciotomy Versus Collagenase Treatment for Dupuytren Contracture: A Randomized Controlled Trial with a Two-Year Follow-up.
    Strömberg J, Ibsen Sörensen A, Fridén J.

14. A Comparison of the Effect of One, Three, or Six Weeks of Immobilization on Function and Pain After Open Reduction and Internal Fixation of Distal Radial Fractures in Adults: A Randomized Controlled Trial.
    Watson N, Haines T, Tran P, Keating J.

15. A Prospective, Randomized, Double-Blinded Controlled Trial Comparing Ibuprofen and Acetaminophen Versus Hydrocodone and Acetaminophen for Soft Tissue Hand Procedures.
    Weinheimer K, Michelotti B, Silver J, Taylor K, Payatakes A.