Bucharest 2-4 October 2025

Update from national and international consensus

Latin American Consensus - COLAVI

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ASUETI

VISCOSUR

UFRJ

GOR GRUPO DE ORTOPEDIA REGENERATIVA UFRJ

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- ❖ Physiatrist and Rheumatologist.
- ❖ Specialist in:
  - Exercise and Sports Medicine – EEFD-UFRJ;
  - Human Performance Sciences – EEFD – UFRJ;
  - Strength Training – EEFD-UFRJ.
  - Master's in Medical Clinic – Rheumatology – FM – UFRJ.
  - Doctor of Medicine in Medical Clinic – Rheumatology – FM – UFRJ.
- ❖ Member of the Brazilian Academy of Rehabilitation Medicine – Chair No. 30.
- ❖ President of A.S.U.E.T.I. – South American Association for the Study of Injectable Treatments.
- ❖ Head of the VISCOSUR and LATINVISCO groups
- ❖ Physician at the Regenerative Orthopedics Group (GOR) of HUCFF-UFRJ

- A Latin American Expert Consensus on Viscosupplementation for Knee Osteoarthritis

COLAVI – K

- Consenso de Expertos Latinoamericanos sobre la Viscosuplementación para la Osteoartritis de Rodilla

COLAVI – R

COLAVI - R authors

- The **COLAVI-R** was developed by **24 specialists** from **fourteen Latin American countries**, **involving seven South American countries, five Central American countries, and two North American country (Mexico).**
- **The study** was **overseen** by the **scientific board** of the South American Association for the Study of Injectable Treatments **(ASUETI),** addressing the treatment of knee osteoarthritis with hyaluronic acid and combinations.

PANELIST	COUNTRIES	SPECIALTY
MARCOS BRITTO DA SILVA	BRASIL	Orthopedist – Sport Medicine
ANTONIO MANVEZ ORTESA BASULTO	MEXICO	Orthopedist
JESUS IGNACIO CARDONA MEDINA	MEXICO	Orthopedist
OSVALDO ANDRES G RIVEROS	EQUADOR	Orthopedist
JOSÉ MONTES FERRIN	EQUADOR	Rheumatologist
GUSTAVO ANTONIO GIL NORIEGA	COLOMBIA	Epidemiologist - Orthopedist
PAULO CESAR HAMDAN	BRASIL	Rheumatologist - Physiatrist
JUAN JOSÉ SCALI	ARGENTINA	Rheumatologist
RONNY SAAVEDRA LARA	BOLÍVIA	Rheumatologist
LUIZ GOMEZ	REPÚBLICA DOMINICANA	Orthopedist
ALLAN CHEW	GUATEMALA	Orthopedist
GUILLERMO ZIVIETCOVICH CORNEJO	PERU	Orthopedist
DOUGLAS FRANCISCO TOCHE HERMANO	EL SALVADOR	Rheumatologist
LUIS DIEGO CASTRO SANCHES	COSTA RICA	Orthoprdist
ALEJANDRO JESUS GONZALEZ	HONDURAS	Rheumatologist
GUSTAVO GUILHERME NASSWETTER	ARGENTINA	Rheumatologist
RAFAEL FERNANDO SERRANO SANCHEZ	COLÔMBIA	Epidemiologist
LUIS ROTAS LENA	CHILE	Orthopedist
CARLOS BRUNO REIS PINHEIRO	BRASIL	Sport Medicine- Radiologist
FABIO RAMOS COSTA	BRASIL	Orthopedist
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CAROLINA PISANTE	VENEZUELA	Orthopedist

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COLAVI - R publication

Submitted to the Journal of Orthopaedic Translation (JOT) :

JOTr-D-25-01013

JOURNAL OF Orthopaedic Translation

Paulo Cesar Hamdan; Zartur José Barcelos Menegassi; Rafael Fernando Serrano Sanchez; Allan Chew; Guillermo Zivietcovich Cornejo; Juan José Scali; Alejandro Jesus Gonzalez; Antonio Manvez Ortesa Basulto; Carlos Adolfo Pasquel Cosmo; Carlos Bruno Reis Pinheiro; Carolina Pisante; Douglas Francisco Toche Hermano; Fabio Ramos Costa; Gustavo Antonio [illegible] Noriega; Gustavo Guilherme Nasswetter; Jesus Ignacio Cardona Medina; José Montes Ferrin; Luis Rotas Lena; Luiz Gomez; Luis Diego Castro Sanches; Marcos Britto da Silva; Osvaldo Andres G Riveros; Paulo Jose Llinas Hernandez;Ronny Saavedra Lara.

COLAVI - R methodology

- 24 specialists, from 14 different Latin American countries: traumatology and orthopedics; rheumatology; physiatry; sports medicine, radiology and pain clinic.
- Fifteen questions developed by the PICO method and validated by non-consensual experts.
- For answers, a search was carried out in the databases PubMed, Elsevier, Scielo, Cochrane and Scopus, over the last 10 years, which resulted in 396 studies.
- A total of 194 were excluded by the PICO methods.
- Of the 202 references used, 57 were selected.
- The GRADE scale was used to define the degree of recommendation and the level of evidence.

Manterola C, Asenjo-Lobos C, Otzen T. Jerarquización de la evidencia: Niveles de evidencia y grados de recomendación de uso actual. Rev Chilena Infectol [Internet]. 2014;31(6):705-18.

COLAVI - R methodology

- Five groups were formed, and 15 questions were distributed to each group for analysis and response.
- Each response was put to a vote by the 25 participants, using the modified **Delphi method**.
- A vote in favor of more than 80% was considered consensus for the recommendation.
- A single iteration was conducted for **15 recommendations**, and **two iterations for those related to the use of ultrasound (US) and Cs.**

- Knee osteoarthritis (KOA) treatment should be multidisciplinary, including physical activity, weight loss, and the use of oral or topical non-steroidal anti-inflammatory drugs (NSAIDs), which have proven effectiveness for pain management.
- Most clinical guidelines (86%) view intra-articular hyaluronic acid (IA HA) therapy as favorable or at least neutral for KOA pain management.
- Recent independent evidence supports its use, and 88% believe it should be covered by health insurers.
- Viscosupplementation (VS) is particularly useful for patients who do not respond adequately to oral medications.

9) VS as a single or **associated therapy and which**

10) Guided or Unguided injections

11) Better access ways

12) Cost-effectiveness

13) Time to VS suspension **before arthroplasty**

14) **Post-arthroscopy** VS

15) VS in patients on **anticoagulant therapy**

16) VS in patients on **antiplatelet therapy**

17) VS in patients with **rheumatic diseases**

COLAVI R

Strong points

- We aim to clarify the doubts of non-specialists and patients concerning VS
- Thus, we include topics for this purpose:
  - ❖ Comorbidities;
  - ❖ Weigth loss and BMI;
  - ❖ Metainflammation ;
  - ❖ Anticoagulants and anti-platelet therapy
  - ❖ Rheumatic diseases
  - ❖ Possible associations with AH

Colavi News	Manitol	PRP	CS	Phy/ST	Expert
Associations	REDUCE pain and IMPROVE function (1C)	useful in stages I and II (1B)	before, during, or after	REDUCE pain in stages II and III for 3 to 6 months (1B).	frequently use this combination at different levels of chondropathy with good results (1C).
VS post arthroscopy	The suspension of VS can be considered **3 to 6 months before arthroplasty**, in order to avoid postoperative risks, such as infections (2C) It can be used **starting 30 days after surgery.** (1 B) It is not recommended in the immediate intra- and postoperative period - arthroscopy: it may increase the inflammatory reaction, and it has not demonstrated pain control or articular homeostasis. (1B) VS is a good therapeutic complement for the knee after arthroscopy associated with PRP. (1B)				
PRP	Recommended: PRP compared to VS shows that PRP offers better results in pain reduction, quality of life, and function (1B)				
Corticosteróides	Recommended : improve function and pain in patients with acute KOA , but for a shorter period and with greater complications (1B).				
Cost effectiveness	VS in stages I, II, and III, better cost-benefit ratio than Cs. VS delays the progression to stage IV and the need for arthroplasty. In stage IV, VS is less cost-effective than in early stages (1C)				

Comorbidities	There are no studies available that allow for a recommendation. There is no contraindication for patients with OA and metabolic disorders (e.g., diabetes), BMI >30, gout, and chondrocalcinosis.
Anticoagulant therapy and Antiplatelet therapy (1 C)	It has been observed that VS is a safe procedure for patients treated with anticoagulants. VS is recommended in multiple doses, without the need for routine INR testing. Patients taking warfarin must demonstrate adequate control before the procedure. In patients treated with antiplatelet agents (clopidogrel), the use of VS is suggested as it does not cause hemorrhagic complications.
Rheumatic Diseases	There is no support for the indication of VS in OA secondary to rheumatic diseases. Ex: RA; AS; Gout; Chondrocalcinosis) Limited evidence in primary RA, with similar effectiveness to Cs.

Key differences

- **EUROVISCO:** more rigid in pre-injection diagnosis (mandatory X-ray; VAS 3–8/10).
- **COBRAVI:** pragmatic (endorses corticosteroid + HA combo, emphasizes Brazilian cost-effectiveness).
- **COLAVI:** includes PRP, MSC, patellofemoral chondropathy, and tendinopathy; strongly recommends ultrasound guidance , discusses suspension before artroplsty and after arthroscopy and emphasizes the cost-effectiveness of a single dose of HMW HA.

Criterion	EUROVISCO (2023–24)	COBRAVI J (2019)	COLAVI / LatinVisco (2023)
Specific pathologies	**Tibiofemoral OA**	**Knee OA**	**Also patellofemoral chondropathy (1–3 doses, BMI <30) + periarticular tendinopathies**
Chondroprotective effect	No definitive claim	Suggests possible chondroprotection	Not clinically proven; mainly analgesia & function
Analgesia	Sustained (ideal VAS 3–8)	Analgesic emphasis	Onset ≤2 weeks; lasts up to 24 wks; PRP superior to HA in some
Anti-inflammatory effect	Recognized, but avoid during flare	Emphasized	Only in vitro; no robust clinical evidence
Imaging guidance (USG)	Not mandatory for first VS	Improves accuracy, not mandatory	Strongly recommended (1A); blind access acceptable (1B)
Dosage / cost-effectiveness	No detail single vs multi-dose	Mentions cost-effectiveness	Recommends single-dose HMW HA as most cost-effective; 3–5 doses also accepted
Anticoagulants / antiplatelets	Acceptable	No position	Safe (1B); no INR needed; also safe with antiplatelets (1C)
Suspension before arthroplasty	Not specified	Not specified	Suggests stopping 3–6 months before arthroplasty (2C)
Post-arthroscopy	Not addressed	Not addressed	Not recommended immediately post-op; may use ≥30 days, ideally with PRP
Level of evidence / method	European Delphi, good practice (2023–24)	Brazilian Delphi, level V (2019)	Latin American Delphi, 25 experts/15 countries, GRADE (2023)
Contextual emphasis	Strict criteria; European context	Brazilian focus: cost-effectiveness, local practice	Latin American focus: HA + PRP + Cs + MSC;

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New Project !

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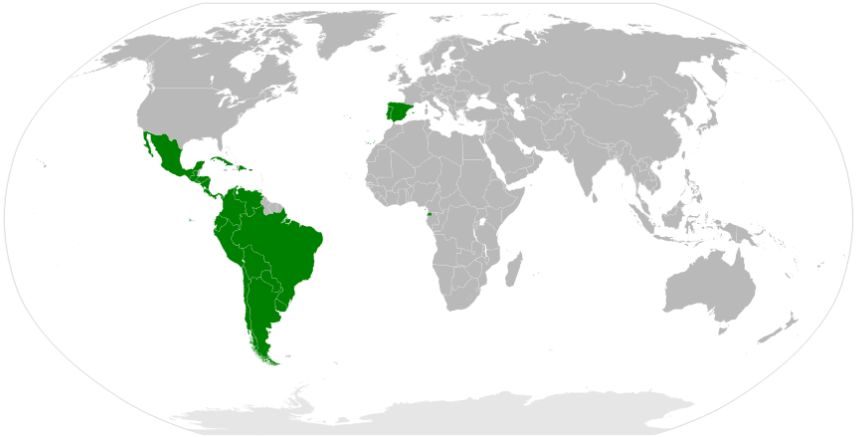

Ibero-American consensus, including: knee, hip and shoulder

Consenso iberoamericano, que incluye: rodilla, cadera y hombro