Return to Play

Wat weet de wetenschap?

Inge van den Akker-Scheek

Sportmedisch Centrum UMCG

Sportblessures

- 3,7 miljoen sporters in NL VeiligheidNL, 2012
- Veel meer!?! Bahr, 2009
- Acute & chronische blessures

Doel behandeling

Veilige en **succesvolle** terugkeer naar het veld

- **Veilig**: restklachten, recidief
- **Succesvol**: prestatieniveau

Veilige RTP

- 4 keer hoger risico om opnieuw geblesseerd te raken Fuller, 2007
- Zelfs na de sportcarrière restklachten
  Kettunen, 2002

Return to Play

- Wanneer is een sporter klaar om weer terug te keren naar het sportveld?
- Welke factoren spelen een rol?

Return to Play

Wat weet de wetenschap?

Evidence-based medicine

Kort antwoord

BAR WEINIG!!

Toelichting

- Return to Sport/Return to Play AND hockey AND criteria/guidelines

PubMed

umcg

IJSPT

CLINICAL COMMENTARY

PEDIATRIC SPORTS SPECIFIC RETURN TO PLAY GUIDELINES FOLLOWING CONCUSSION

Review

American Medical Society for Sports Medicine position statement: concussion in sport

Kimberly G Harmon,[1] Jonathan A Drezner,[1] Matthew Gammons,[2] Kevin M Guskiewicz,[3] Mark Halstead,[4] Stanley A Herring,[1] Jeffrey S Kutcher,[5] Andrea Pana [6] Margot Putukian [7] William O Roberts[8]

Endorse

Distal Semitendinosus Ruptures in Elite-Level Athletes

Low Success Rates of Nonoperative Treatment

Daniel E. Cooper,*† MD, and John E. Conway,‡ MD
From the †The Carrell Clinic, Dallas, Texas, and ‡Orthopaedic Specialty Associates, Ft. Worth, Texas

Literatuur search

- 20 publicaties
  - 12 over RTP na hersenschudding
  - 6 over % RTP
  - 2 opinie artikelen

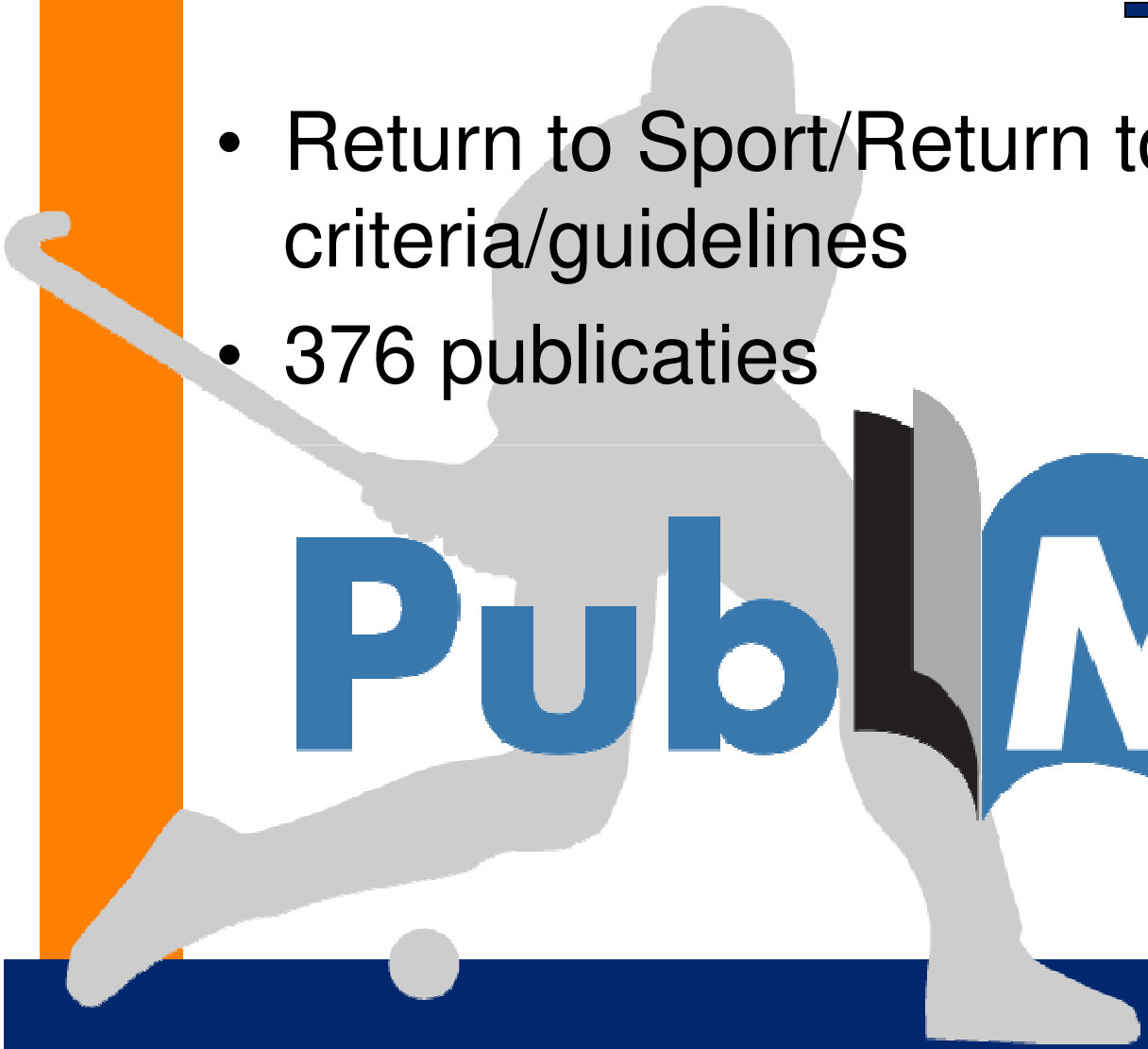
En...

Let's celebrate hockey

Rabobank HOCKEY Men & Women World Cup THE HAGUE 2014

Sport algemeen

- Return to Sport/Return to Play AND criteria/guidelines
- 376 publicaties



PubMed

Return to Play

Table 1 Graduated return to play protocol

Rehabilitation stage	Functional exercise at each stage of rehabilitation	Objective of each stage
1. No activity	Complete physical and cognitive rest	Recovery
2. Light aerobic exercise	Walking, swimming or stationary cycling keeping intensity <70% maximum predicted heart rate	Increase heart rate
3. Sport-specific exercise	No resistance training Skating drills in ice hockey, running drills in soccer. No head impact activities	Add movement
4. Non-contact training drills	Progression to more complex training drills, eg passing drills in football and ice hockey	Exercise, coordination, and cognitive load
5. Full contact practice	May start progressive resistance training) Following medical clearance participate in normal training activities	Restore confidence and assess functional skills by coaching staff
6. Return to play	Normal game play	

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Acute blessures

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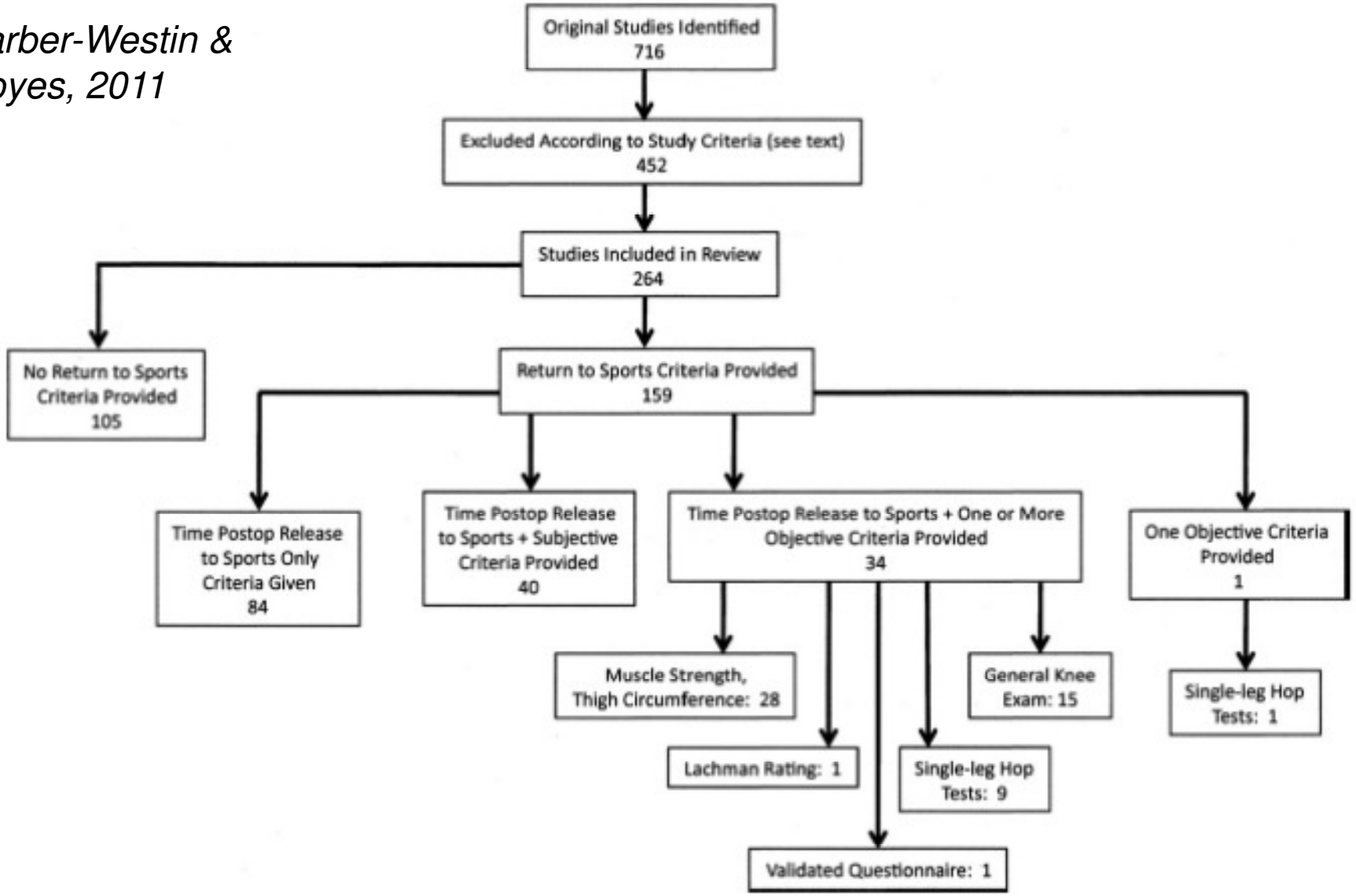
RTP Criteria

- *"many questions and a lack of consensus regarding the appropriate criteria"*
- *"absense of clear scientific evidence"*
- *"RTP decisions lack standardization"*
- *"more evidence-based studies are needed"*

Return to Play na VKB ruptuur

Barber-Westin & Noyes, 2011

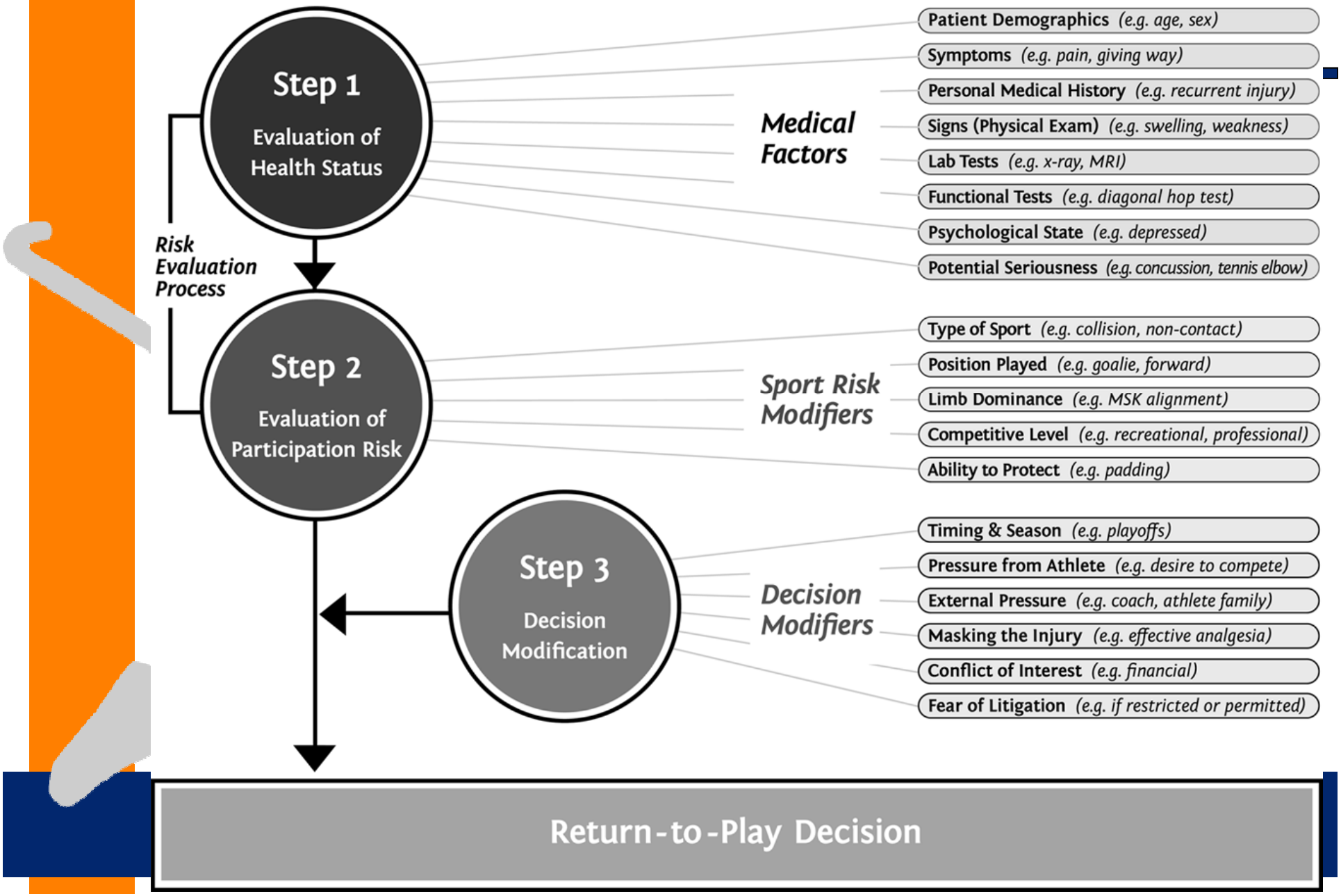


Criteria

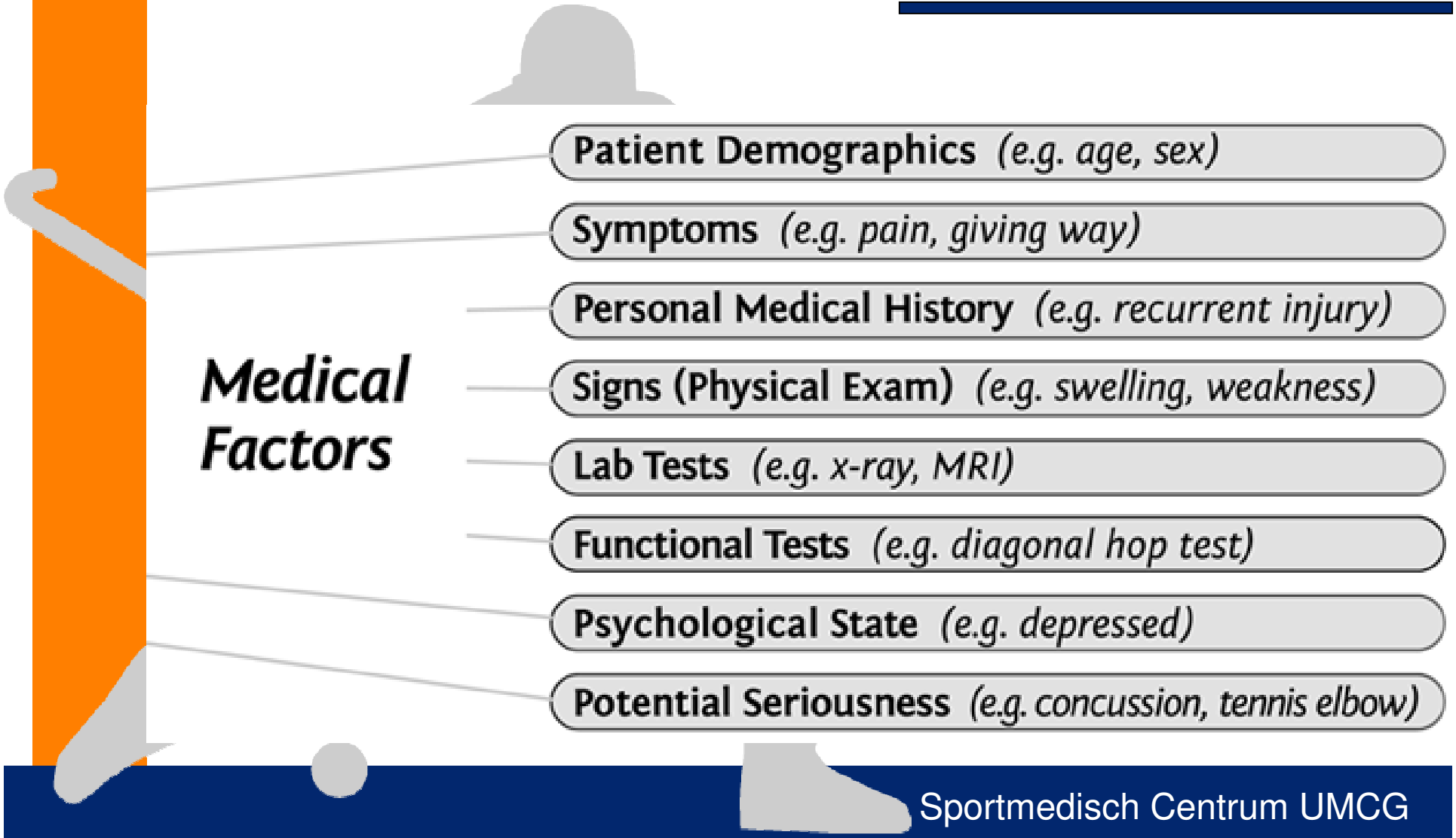
- Tijd (158 studies)
  - >6 maanden (84)
- Subjectieve criteria (40 studies)
  - volledige functionele stabiliteit (14)
- Objectieve criteria (35 studies)
  - Spierkracht: isokinetische kracht quadriceps >80-90% tov andere zijde (25)
  - LO: geen vocht & volledige ROM (15)
  - SLHT afstand >90% tov andere zijde (10)

Rational decision model

Decision-Based RTP Model *(Creighton et al. 2010)*



Stap 1: Evaluatie Blessure



Symptomen bij LO

- Kracht en ROM: vergelijkbaar (70-100%) met voor blessure danwel andere zijde

- Geen instabiliteit
- Niet gevoelig
- Geen zwelling
- Geen vocht

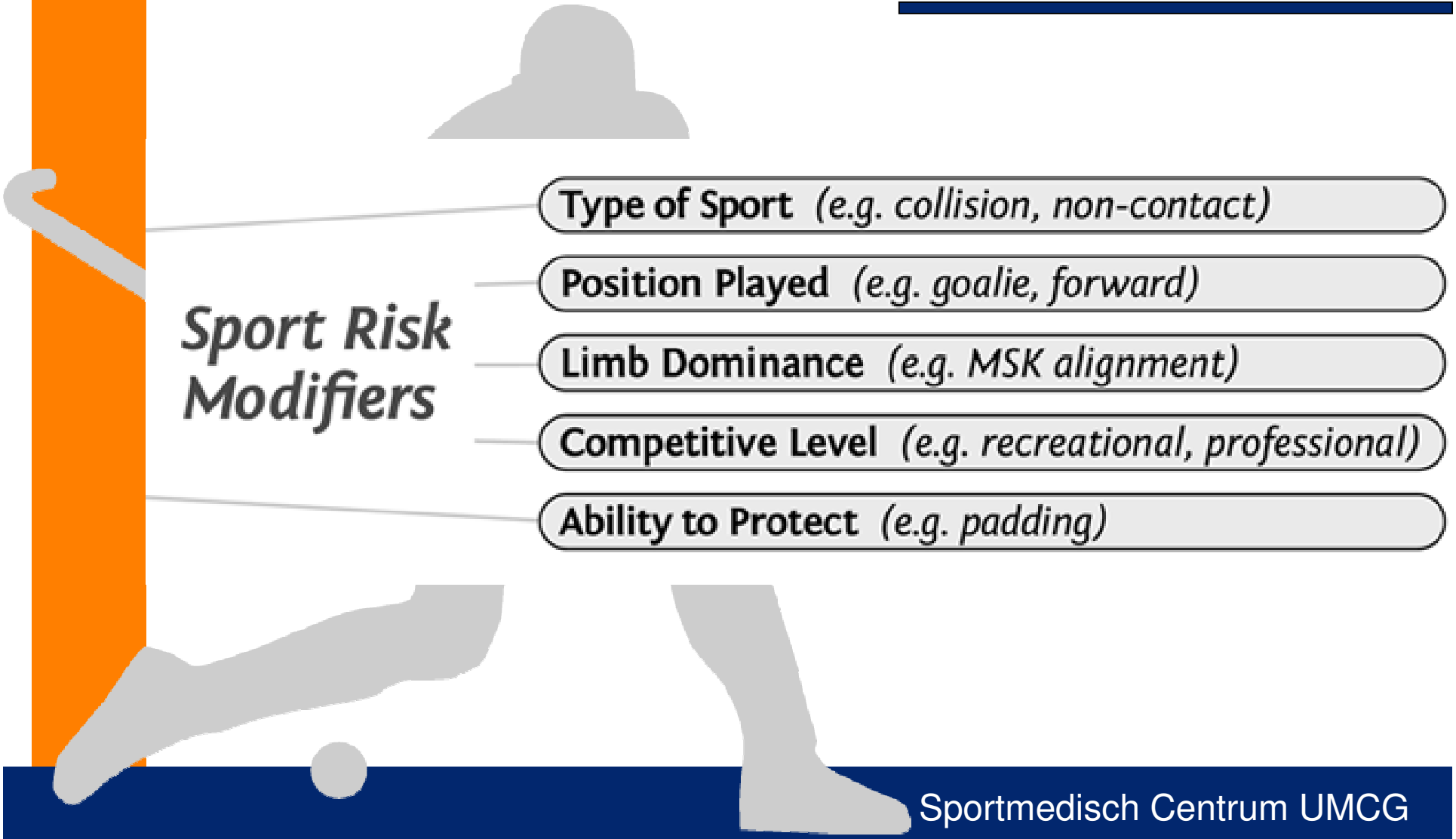
TABLE 1. General Recommendations for Each of the Physical Signs Used by Clinicians to Evaluate Whether an Athlete Should Be Allowed to Return to Play

Sign	General Recommendation	References
Strength	At or near pre-injury levels or symmetrical with unaffected side	14,30,51–53,56–61,65,67,68,71,73–79
Range of motion	At or near pre-injury levels or symmetrical with unaffected side	13,14,17,30,51–53,56–61,64,65,67,68,72,73,75–80
Joint stability	No instability	13,15,28,52,53,61,62,71,72,81
Tenderness	Injury site should be nontender	51,66,69,82
Inflammation or swelling	No swelling or inflammation	30,61,80
Effusion	No effusion	30,60
Girth	No specific recommendation provided	30

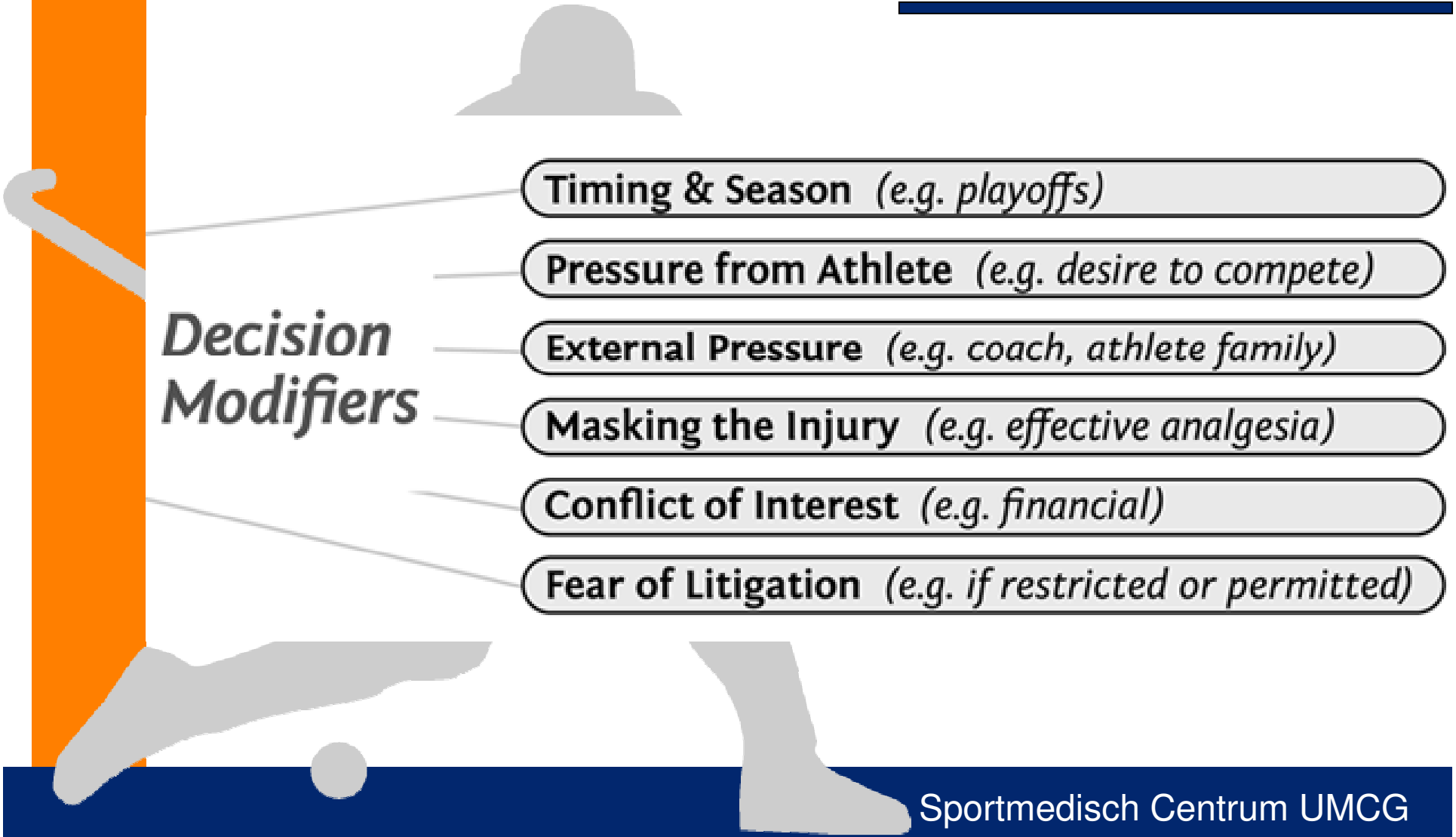
Readiness

- Fysieke ‘readiness’
- Psychologische ‘readiness’

Stap 2: Evaluatie Risico's



Stap 3: Beïnvloedende factoren



Teamwork

- Shared decision-making! Shrier et al 2014
- Blessure (stap 1): (sport)arts, (sport)fysiotherapeut
- Andere factoren (stap 2&3): sporter, coach, sportbond

Onderzoek

- Naar elk van de factoren in het model
- Rol psychosociale factoren
  - Vertrouwen – angst voor nieuwe blessure
  - Steun
  - Motivatie
  - ...
- Effect op korte en lange termijn
- Sport- en blessurespecifiek

RTP Chronische Blessure

- Blijven sporten
- Pijn & verminderde prestatie
- Trial-and-error
- Verdere schade, restklachten, nieuwe blessures
- RTP - weer voluit en pijnvrij sporten

Take Home Messages

- Weinig evidence-based criteria bekend
- Vele factoren spelen een rol bij RTP
- RTP is

TEAMWORK

coming together is a beginning
keeping together is progress
working together is success

- Henry Ford

Dank voor uw aandacht!

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Referenties:

- *Creighton et al. Return-to-Play in Sport: A Decision-based Model. Clin J Sport Med 2010; 20(5):379-384.*
- *Barber-Westin & Noyes. Factors used to determine return to unrestricted sports activities after ACL reconstruction. Arthroscopy 2011;27(12):1697-1705.*