From postseason injury analysis through pre-season screening — risk management in the team setting

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What is risk management?
Stage 1: Risk factors (intrinsic/extrinsic)

Epidemiological studies

Risk perception

Stage 2: Risk estimation

Stage 3: Risk evaluation

Stage 4: Communicate risks to the sports community

Risk mitigation

Preventive interventions

Therapeutic interventions

Unacceptable level of risk

Acceptable level of risk

Step 1: Risk identification

Step 2: Season analysis

Step 3: Athlete risk factor analysis

Stage 4: Risk acceptance or mitigation
Step 1: Risk identification

Step 2: Season analysis

• Reviewing the literature on injury risks in the specific sport
• Reviewing injury reports from at least one season (NHL, Tippeligaen)
• Reviewing player turnover and availability within one or more seasons

Step 3: Athlete risk factor analysis

Stage 4: Risk acceptance or mitigation

**Severity**

- Catastrophic
- Severe
- Major
- Minor
- Insignificant

**Likelihood**

- Rare
- Unlikely
- Moderate
- Likely
- Almost certain

ACL injuries (♂)

Hamstring strains (♀)

Ankle sprains

Cuts & bruises

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Oslo Sports Trauma

Research Center
But you want your own data!
Step 1: Risk identification

Step 2: Season analysis
- Formal review of competition & training plan
- Include review of past experiences
- Must include full coaching staff
- Also include player reps/all athletes?

Step 3: Athlete risk factor analysis

Stage 4: Risk acceptance or mitigation

1. Training camp in Portugal:
   - Two sessions a day
   - Change of surface & climate
   - Everyone very keen to finally train and play on grass - high tempo
2. New training camp to polish form
   - Several practice games
   - Hard grassy playing fields on Cyprus
   - Competition for a spot on the team - high intensity during competition and training
3. Start of competitive season
- Higher tempo
- Packed competitive schedule
- Change of surface to soft grass
### 4. Transition to basic training

- **Increase in running on gravel**
Step 1: Risk identification

Step 2: Season analysis

- PHE: Pre- or post-season?
- Full functional evaluation of all players
- Assess relevant risk factors
- Return-to-play procedures

Step 3: Athlete risk factor analysis

Stage 4: Risk acceptance or mitigation
Periodic health evaluation

*Purposes*

- A comprehensive assessment of:
  - The athlete’s current health status
  - Risk of future injury or disease
- Entry point for medical care of the athlete
- Tool for continuous health monitoring in athletes

*The International Olympic Committee (IOC) Consensus Statement on periodic health evaluation of elite athletes.*
Aspetar Injury & Illness Prevention Program
- Athlete Screening Program

Screening (PHE)

- Patient history
- Cardiac (ECG/echo)
- General medical exam
- Musculo-skeletal exam
- Blood tests
- Pulmonary function
- Vision

PHE tailored to sport, age, gender w/follow-up exams as indicated
Step 1: Risk identification

Step 2: Season analysis

Step 3: Athlete risk factor analysis

Stage 4: Risk acceptance or mitigation

Risk acceptance:
- Insurance
- Increase team roster
Step 1: Risk identification

Step 2: Season analysis

Step 3: Athlete risk factor analysis

Stage 4: Risk acceptance or mitigation

Risk mitigation:
- Develop prevention program
- Training program
- Therapeutic interventions
- Equipment & facilities
- Emergency management (staff & equipment)
Step 1: Risk identification

Step 2: Season analysis

Step 3: Athlete risk factor analysis

Stage 4: Risk acceptance or mitigation

Doable, easy

Possible, never tested

Possible, but know why?

Certainly possible!
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