Introduction to Sports Medicine

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Learning Objectives

• Define sports medicine
• Illustrate the role of members of the sports medicine team
• Discuss clinical importance of the question ‘Why has this injury occurred?’

Definition

• Caters to the broad-ranging health care needs of those engaging in, or seeking to engage in, physical activity
• Medicine of physical activity
Sports Medicine is Broad-Ranging

The musculoskeletal component:

- Injury prevention
- Diagnosis
- Treatment
- Rehabilitation

Sports Medicine is Broad-Ranging

But it is much more than that…

- Optimising performance
  - Nutrition, psychology
- Management of ‘medical’ problems
  - That result from activity (i.e., exercise-induced bronchospasm, runner's diarrhoea)
- Exercise prescription for prevention and management of chronic diseases

Sports Medicine is Broad-Ranging

Care of populations:

- Populations with special needs
  - Including the young, those with disabilities
- Sporting teams
- Participants in group events
- Participants at altitude, depth, in heat, cold
Sports Medicine is Broad-Ranging

Societal issues:

• Ethics
• Doping

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Team Approach Needed

The breadth of sports medicine means that optimal care cannot be provided by one practitioner

Many disciplines can provide specialised expertise

GP is often the first point of contact with an athlete, so can contribute greatly to initiating the team approach, where needed; coordinating role crucial too.
Interdisciplinary Sports Medicine Model

Case History
15-yr old girl with anterior knee pain
- Trial of home quadriceps strengthening program
- No improvement in 6 weeks
- GP initiated referral to a physiotherapist for a programme of
  - More individualised exercises
  - Patellar taping
  - Soft tissue releases, lateral structures

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Why Has This Injury Occurred?

- ‘Treating the cause’
- A basic tenet of medicine
- Applied to sports medicine equally
- Overuse sports medicine injuries are not ‘accidents’
- Crucial to discover their cause

Case History

25-yr-old runner with medial shin pain
- Diagnosed as tibial stress fracture
- Rest alone provided temporary relief of pain, but stress fracture recurred 7 months after return to sport
- Excessive pronation diagnosed as a cause of muscle fatigue, poor shock absorption and orthotics prescribed

Treating the Cause

21-yr old volleyball player with rotator cuff ‘impingement’
- NSAIDs provided no relief
- Assessment of surface anatomy (infraspinatus wasting)
- Biomechanics (‘float serve’) with coach
- Scapulohumeral rhythm (humerus riding superiorly)
- Approach outlined in future lectures
Meeting Individual Needs

- Every patient is a unique individual with specific needs
- Compare the needs of a professional athlete with a recreationally active person
- Both require careful, appropriate advice
- Timelines are important in both cases
- Sports medicine approach can help other patients in your practice
- Treatment will depend on commitment (time, money) but all Rx needs to be outlined

Important Role of Coach

- If the patient has a coach, the coach should be involved in medical decision-making as the player/coach see fit.
- There are issues about patient confidentiality of course but in most cases the athlete wants the coach to be aware of diagnosis and treatment plans

Role of Coach

- Coach can help the doctor understand what is causing the problem (technical/biomechanical advice)
- Can help with athlete compliance
- Can contribute to discovering/implementing future prevention strategies
Understanding Sport

Important for:
• Understanding cause of injury
• Instigating appropriate Rx
• Athlete confidence

Can be achieved by attending training / competition

Summary

• Sports medicine is the broad-ranging health care of those engaging in, or seeking to engage in, physical activity
• Successful sports medicine requires a team approach
• The question ‘Why has this injury occurred?’ is important for long-term successful treatment and prevention of recurrence.