



ANZSOM
The Australian and New Zealand
Society of Occupational Medicine Inc



Australasian Faculty of
Occupational and Environmental Medicine
Specialists caring for workers' health

SCIENTIFIC
PROGRAM
PARTNER



Sonic
HealthPlus

MAJOR
SPONSOR

FROM RAMAZZINI TO ROBOTS: THE FUTURE OF WORK, HEALTH AND HUMANITY

THE AUSTRALIAN AND NEW ZEALAND
SOCIETY OF OCCUPATIONAL MEDICINE
ANNUAL SCIENTIFIC MEETING

22 - 25 OCTOBER 2023
CANBERRA, AUSTRALIA

ABSTRACTS BOOK

1100 - 1115

Medicinal Cannabinoids - what is the risk? Safety critical work considerations

Dr Karina Powers

Occupational Physician, AbilityOPN

1. Whilst medicinal cannabinoids are described as therapeutic for a wide range of medical conditions, what robust evidence is there and is the use of these preparations healthy? Use of these medicines is increasing in prevalence, what can we expect for the future in safety critical work?
2. Literature review, discussion with occupational physicians engaged in safety critical work and laboratory experts has identified significant concerns for quality assurance of products, potential for side effects and risk in safety critical tasking.
3. A high level of evidence regarding THC in product used along with careful consideration of worker characteristics and safety critical tasking is required. Consideration of expert consensus in industry groups with guidelines is recommended.

1115 - 1130

The health of surgeons after the COVID-19 pandemic

Professor Karen Walker-Bone

Professor, Monash University

Learning objectives:

- To investigate the physical and mental health of surgeons post-pandemic.
- To explore their impact on retirement intentions.

Methods & Findings:

Surgeons were surveyed about body pain and work-related factors. Specifically, they answered questions about weekly occupational activities, job dissatisfaction, work-life balance, access to favourable working conditions, provision for physical comfort at work, and their mental wellbeing.

Surgeons (N=242) reported high engagement with strenuous occupational activities and an imbalance between work and their private life, while 1 in 6 reported being dissatisfied with their job. The one-month prevalence of musculoskeletal pain in surgeons ranged from 46% at the lower back, to 12% at the ankle, while only 17% reported no pain. Better work-life balance had a protective effect against pain (PRR=0.92, 95% CI=0.85-0.99), while risk of pain increased with number of physically demanding activities at work (PRR=1.04, 95% CI=1.01-1.07).

Conclusion:

This study demonstrated high physical and mental demands in surgeons in the post-Covid era. Pain prevalence rates exceeded those seen in other occupations, and related physical and emotional links were identified.

Implications for practice:

Optimal patient care requires fit and healthy surgeons. Our findings suggest that surgeons are struggling with their health and experiencing work-life conflict, which could impact their health longer-term and restrict them working to older ages.

1130 - 1145

The Victorian WorkCover Authority IME worksite visit program

Dr Bruce Hocking

Bruce Hocking and Assoc.

The Victorian WorkCover Authority Independent Medical Examiner WorkSite Visit Program is described. A clinical examination is followed by a worksite visit so a comprehensive opinion can be given regarding the injury, contributory workplace factors and a return to work plan. Some results of the program are presented. Strengths and weaknesses of the program are identified.

Given that the essence of occupational medicine is the application of clinical knowledge with respect to workers and workplaces this program offers an ideal setting for the practice of occupational medicine. The program is apparently limited to Victoria but would offer professional and business opportunities for ANZSOM/AFOEM members if it were extended nationally. It is suggested that ANZSOM/AFOEM should make representations to other workers compensation jurisdictions for similar programs to be instituted.

1145 - 1200

Precision orthopaedic rehabilitation: using digital technology for remote monitoring of patient performance and outcomes

Dr Mark Hurworth

Orthopaedic Surgeon, Murdoch Orthopaedic Clinic

Introduction:

Precision rehabilitation requires prescription of an exercise dose which is adjusted over time based on exercise performance and patient feedback. The challenge for the clinician is how to measure the exercise completed, obtain patient feedback and modify the exercise prescription accordingly. Recent developments in digital technology provide the opportunity for precisely measured, remote-monitored orthopaedic rehabilitation.

Method:

Twenty-five patients having primary knee arthroplasty were enrolled in a feasibility study to evaluate a system of remote-monitored rehabilitation. This consisted of a purpose-built portable cycle ergometer with pedal crank power meters, and digital application interface, which allows individualised exercise prescription and real-time patient feedback. Exercise was performed at a target power-output range, which is guided by real-time visual feedback. Patients provided feedback on pain and effort at the end of each exercise session. Exercise compliance (sessions completed), and patient feedback (pain and effort) are monitored and prescribed exercise adjusted remotely by the treating clinician.

Results:

Patients commencing the program two weeks after surgery completed more than 90% of the prescribed exercise sessions and provided the required feedback.

Improvements in lower limb muscle power output and symmetry, were observed over the four week program.. Patient experience feedback was positive in relation to system usability, communication with the clinical team and motivation to exercise.

Conclusion:

Using digital technology to connect the patient and clinical team, this study demonstrates the capacity to prescribe exercise and measure patient performance in early phase rehabilitation. Remote-monitored rehabilitation may enhance access to care, and precision in exercise prescription.

1200 - 1215

Demonstrating the value of occupational health - a window to the future through the analysis of human risk data

Dr Peter Connaughton

Occupational Physician, Simcon Occupational Health

Co-Author: Dr Graeme Wright, PhD

Learning Objectives:

Safe Work Australia has estimated the annual cost of work-related illness is \$33.5 billion, or \$216,000 per event, not including work-related injuries. The underlying causes and pre-existing risks are often poorly understood or not addressed. The objectives were to utilise software to analyse individual worker health risks and the outcomes and value of focused workplace health programs.

Methods & Findings:

Data was collected from over 2,000 workers across a range of industries over 3 years. The workplace health programs assessed workers using validated screening tools and it enabled them to monitor their own health and wellbeing. Nine risk assessment modules could be chosen from including cardiac risk, lifestyle factors and mental health. Professional support, structured interventions and education resources were provided. Outcome data will be presented, and some examples include a return on investment of \$54 per employee per month, a 14% reduction in stress levels, a reduced injury frequency rate from 12.8 to 2.8, a 57% improvement in quality of work and a 12-month saving in leave costs of \$400,000. 99% of the participants would recommend the program to their colleagues.

Conclusions & Implications for Practice:

For occupational health strategies to be more widely adopted in Australia it is essential to be able to clearly demonstrate value. There are major opportunities to use innovative software solutions to mitigate human risks, tailor interventions and to evaluate program outcomes. Such data is highly valuable to workers, employers, and policymakers.

1215 - 1230

Deaths in Australia from work-related heat stress

Dr Richie Gun

Occupational Physician

Learning Objectives:

To identify the environmental, occupational and personal factors which may cause heat-related illness (HRI) and death.

Methods & Findings:

Work-related deaths from heat stress were identified from the National Coronial Information System database. Coronial reports, autopsy findings and meteorological data were studied, and modelling undertaken of thermal balance and water and electrolyte balance in the deceased workers.

Conclusions & Implications for Practice:

Self-pacing, whereby the individual reduces work rate in response to perceived heat stress, is a critical factor in preventing HRI. The risk of severe HRI is increased when self-pacing is compromised: this was found to be a particular problem in newly-hired workers. Expectations of work rates should be lowered during the acclimatisation period, and one-on-one supervision (the buddy system) is recommended, with a need for special attention to recently-hired workers. Other risk factors identified were obesity, intercurrent illness and pre-existing heart disease.