Curricula Renewal

DRAFT Curriculum standards

Training in Occupational and Environmental Medicine

November 2023

RACP
Specialists. Together

About this document

This document outlines the curriculum standards for Training in Occupational and Environmental Medicine for trainees and supervisors.

The curriculum standards should be used in conjunction with the Training in Occupational and Environmental Medicine learning, teaching, and assessment programs.

For more information or to provide feedback contact curriculum@racp.edu.au.

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Program overview

Purpose of Training

The RACP offers Advanced Training in 33 diverse medical specialties as part of Division, Chapter, or Faculty training programs.

The purpose of Advanced Training is to develop a workforce of physicians who:

- have received breadth and depth of focused specialist training, and experience with a wide variety of health problems and contexts
- are prepared for and committed to independent expert practice, lifelong learning, and continuous improvement
- provide safe, quality health care that meets the needs of the communities of Australia and Aotearoa New Zealand.

Specialty overview

Occupational and Environmental Medicine (OEM) physicians are medical professionals specialised in the field of occupational health. They focus on the health and well-being of workers in relation to their work environment.

An occupational and environmental physician applies high-level medical skills to the interface between a person's work and their health. For an individual worker-patient, this may mean seeking evidence for the work-relatedness of a disease, assisting return to work after injury, or assessing fitness for safety-critical work. For groups of workers, this may mean working to reduce known harmful exposures, research on the effects of exposures or clusters of adverse health effects, or promotion of wellness.

In addition to being medically capable, an occupational and environmental physician requires understanding of harmful exposures, laws that bear on exposure control and employment opportunity, and how to gain influence within organisations to prevent work-related afflictions and to promote wellness. These abilities serve workers and can assist the work of other medical practitioners and occupational health professionals. The changing nature of work including a higher proportion of part-time, home-based and contract work may bring new challenges to occupational and environmental physicians in their future practice.
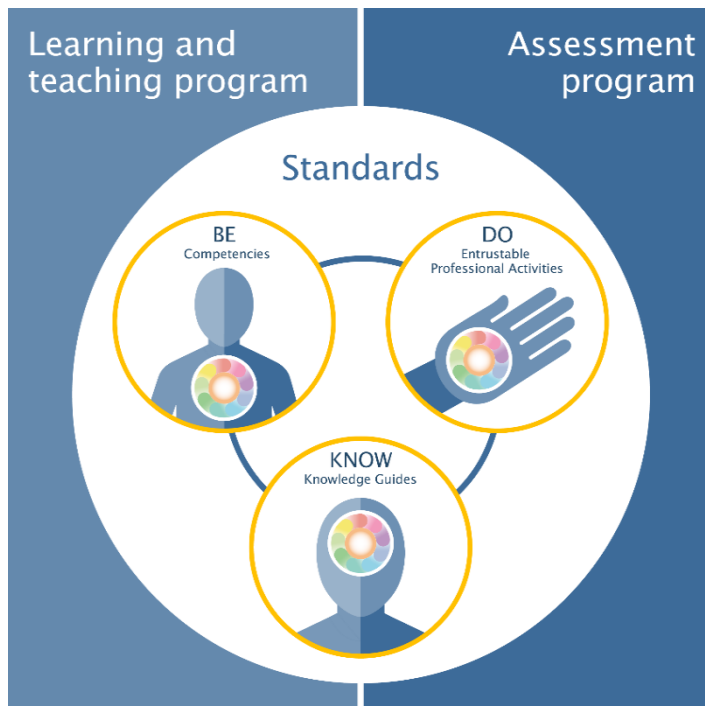
Occupational and Environmental physicians provide person-centred care with a focus on strong clinical skills, including:

- **Investigating assessing and treating patients who have illnesses or symptoms that might be related to environmental factors.** An Occupational and environmental physician is concerned with environmental exposures from aspects such as air, water, soil and food and their effect on health. Occupational and environmental physicians often work in partnership with general practitioners and public health and focus on dressing environmental hazards generated by industry – including neighbourhood noise or dust, chemical spills or site or waterway contamination. Occupational and environmental physicians assess the spread and health effects of an environmental incident, or in planning to reduce the risks of fires, explosions, or sabotage.

- **Evaluating impact of work-related factors on an individual's health and issues related to workplace safety, injury prevention, and overall employee health.** Occupational and environmental physicians demonstrate skills in occupational and environmental medicine, primary health care, occupational hygiene toxicology, ergonomics, epidemiology, and biostatistics. Occupational and environmental physicians support workplaces, employees, communities and stakeholders by managing individual workers and their complex work-related presentations and providing oversight to agencies and companies.

- **Coordinating and managing rehabilitation.** Occupational and environmental physicians work with patients, employers and third parties to co-ordinate fitness for work, rehabilitation and return to work programs.

- **Working flexibly across a variety of settings including:**

  » **Outpatient settings.** Occupational and environmental physicians deliver clinical services largely in outpatient type settings. These are largely privately operated either by individual physicians or larger companies who employ Occupational and environmental physicians.

  » **Office based settings.** Occupational and environmental physicians who work for small to large organisations are usually office based and provide more strategic and administrative support to organisations.

  » **Research based settings.** While this is the smallest setting in which Occupational and environmental services are delivered, it is a vital component as s these settings allow for the further development of medical evidence in Occupational and environmental medicine.

Occupational and Environmental physicians provide leadership with a focus on strong integrity, communication, respect, and advocacy, including:

- **Management of occupational health services. Occupational and environmental physicians are** continuously working to improve the care of workers and communities.

- **Working as an integral part of a multidisciplinary team.** Occupational and environmental physicians work as a leader and/or a part of multidisciplinary teams that deliver health care services. This may be with other physicians, allied health care workers as well as workplace stakeholders. They need to exhibit a collaborative approach focused on building relationships.

- **Holistic care of patients and their families.** Occupational and environmental physicians are comfortable with complex health issues and working in uncertainty.

- **Application of a scholarly approach.** Occupational and environmental physicians use research and evidence in medical care and service development.

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Curricula standards

The **RACP curriculum model** is made up of curricula standards supported by learning, teaching, and assessment programs.

Learning and teaching programs outline the strategies and methods to learn and teach curricula standards, including required and recommended learning activities.

Assessment programs outline the planned use of assessment methods to provide an overall picture of the trainee's competence over time.
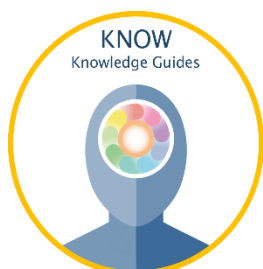
The **curricula standards** outline the educational objectives of the training program and the standard against which trainees' abilities are measured.

- **Competencies** outline the expected professional behaviours, values and practices of trainees in 10 domains of professional practice.

- **Entrustable Professional Activities** (EPAs) outline the essential work tasks trainees need to be able to perform in the workplace.

- **Knowledge guides** outline the expected baseline knowledge of trainees.

Common curricula standards

The renewed curricula will consist of a mix of program-specific content and content that is common across Advanced Training programs.

- **Competencies** will be common across Advanced Training programs.[1]

- **Entrustable Professional Activities (EPAs)** will contain a mix of content that is common and content that is program-specific.

- **Knowledge Guides** will be program-specific, although content may be shared between complementary programs.

Professional Practice Framework

The Professional Practice Framework describes ten domains of practice for all physicians.

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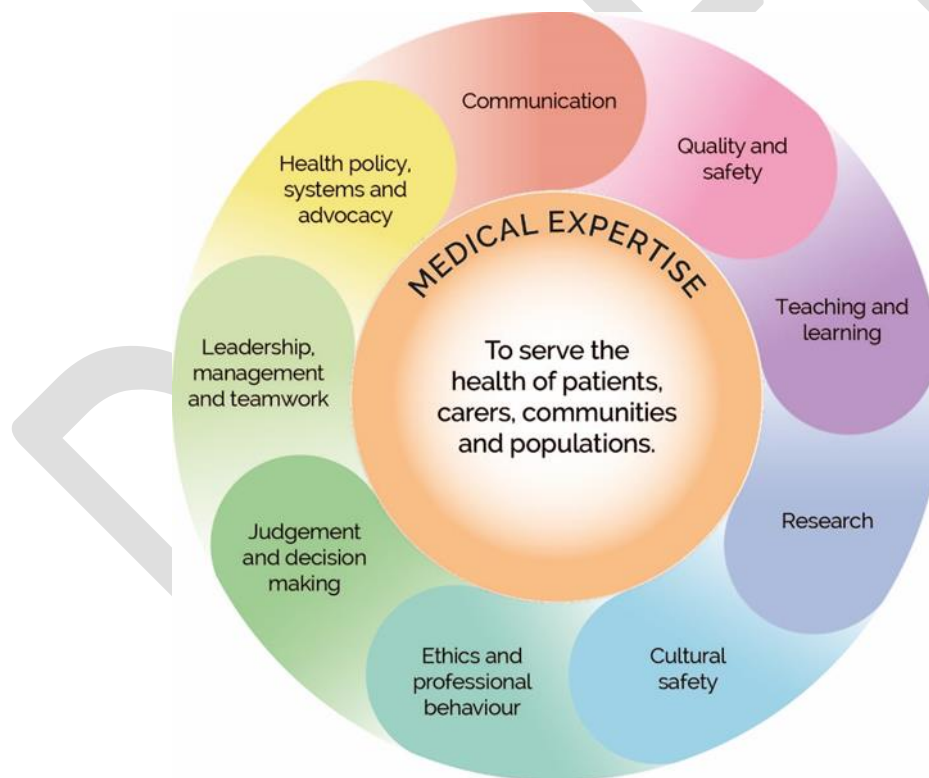
[1] Some tailoring of competencies may be necessary to ensure specialty relevance.

Learning, teaching, and assessment structure

The learning, teaching, and assessment structure defines the framework for delivery

Advanced Training learning, teaching, and assessment structure

- An **entry decision** is made before entry into the program.

- **Progress decisions**, based on competence, are made at the end of the specialty foundation and specialty consolidation phases of training.

- A **completion decision**, based on competence, is made at the end of the training program, resulting in eligibility for admission to Fellowship.

Advanced Training is a **hybrid time- and competency-based training program**. There is a minimum time requirement of between three to five years' full-time equivalent experience, depending on the training program undertaken. Progress and completion decisions are based on evidence of trainees' competence.

The Advanced Training program may be started once the prospective trainee has completed the entry requirements. This includes completion of Basic Physician Training required for Divisional Advanced Training programs.

Curriculum standards

Competencies

Competencies outline the expected professional behaviours, values and practices that trainees need to achieve by the end of training.

Competencies are grouped by the 10 domains of the professional practice framework.

Competencies will be common across training programs.

	Medical expertise **Professional standard:** Physicians apply knowledge and skills informed by best available current evidence in the delivery of high-quality, safe practice to facilitate agreed health outcomes for individual patients and populations.

Knowledge: Apply knowledge of the scientific basis of health and disease to the diagnosis and management of patients.

Synthesis: Gather relevant data via age- and context- appropriate means to develop reasonable differential diagnoses, recognising and considering interactions and impacts of comorbidities.

Diagnosis and management: Develop diagnostic and management plans that integrate an understanding of individual patient circumstances, including psychosocial factors and specific vulnerabilities, epidemiology, and population health factors in partnership with patients, families, or carers[2], and in collaboration with the health care team.

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[2] References to patients in the remainder of this document may include their families, whānau and/or carers.

Communication

Professional standard: Physicians collate information, and share this information clearly, accurately, respectfully, responsibly, empathetically, and in a manner that is understandable.

Physicians share information responsibly with patients, families, carers, colleagues, community groups, the public, and other stakeholders to facilitate optimal health outcomes.

Effective communication: Use a range of effective and appropriate verbal, nonverbal, written and other communication techniques, including active listening.

Communication with patients, families, and carers: Use collaborative, effective, and empathetic communication with patients, families, and carers.

Communication with professionals and professional bodies: Use collaborative, respectful, and empathetic clinical communication with colleagues, other health professionals, professional bodies, and agencies.

Written communication: Document and share information about patients to optimise patient care and safety.

Privacy and confidentiality: Maintain appropriate privacy and confidentiality, and share information responsibly.

Quality and safety

Professional standard: Physicians practice in a safe, high-quality manner within the limits of their expertise.

Physicians regularly review and evaluate their own practice alongside peers and best practice standards and conduct continuous improvement activities.

Patient safety: Demonstrate a safety focus and continuous improvement approach to own practice and health systems.

Harm prevention and management: Identify and report risks, adverse events, and errors to improve healthcare systems.

Quality improvement: Participate in quality improvement activities to improve quality of care and safety of the work environment.

Patient engagement: Enable patients to contribute to the safety of their care.

Teaching and learning

Professional standard: Physicians demonstrate a lifelong commitment to excellence in practice through continuous learning and evaluating evidence.

Physicians foster the learning of others in their profession through a commitment to mentoring, supervising, and teaching[3].

Lifelong learning: Undertake effective self-education and continuing professional development.

Self-evaluation: Evaluate and reflect on gaps in own knowledge and skills to inform self-directed learning.

Supervision: Provide supervision for junior colleagues and/or team members.

Teaching: Apply appropriate educational techniques to facilitate the learning of colleagues and other health professionals.

Patient education: Apply appropriate educational techniques to promote understanding of health and disease amongst patients and populations.

Research

Professional standard: Physicians support creation, dissemination and translation of knowledge and practices applicable to health They do this by engaging with and critically appraising research, and applying it in policy and practice to improve the health[3] outcomes of patients and populations.

Evidence-based practice: Critically analyse relevant literature and refer to evidence-based clinical guidelines and apply these in daily practice.

Research: Apply research methodology to add to the body of medical knowledge and improve practice and health outcomes.

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[3]Adapted from Richardson D, Oswald A, Chan M-K, Lang ES, Harvey BJ. Scholar. In: Frank JR, Snell L, Sherbino J, editors. The Draft CanMEDS 2015 Physician Competency Framework – Series IV. Ottawa: The Royal College of Physicians and Surgeons of Canada; 2015 March.

Cultural safety

Professional standard. Physicians engage in iterative and critical self-reflection of their own cultural identity, power, biases, prejudices, and practising behaviours. Together with the requirement of understanding the cultural rights of the community they serve; this brings awareness and accountability for the impact of the physician's own culture on decision making and health care delivery. It also allows for an adaptive practice where power is shared between patients, family, whānau, and/or community and the physician, to improve health outcomes.

Physicians recognise the patient and population's rights for culturally safe care, including being an ally for patient, family, whānau, and/or community autonomy and agency over their decision making. This shift in the physician's perspective fosters collaborative and engaged therapeutic relationships, allows for strength-based (or mana-enhanced) decisions, and sharing of power with the recipient of the care, optimising health care outcomes.

Physicians critically analyse their environment to understand how colonialism, systemic racism, social determinants of health, and other sources of inequity have and continue to underpin the healthcare context. Consequently, physicians then can recognise their interfacing with, and contribution to, the environment in which they work to advocate for safe, more equitable and decolonised services, and create an inclusive and safe workplace for all colleagues and team members of all cultural backgrounds[4].

This is a placeholder for the competencies in the cultural safety domain, which are in development and will be added at a later date.

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[4] The RACP has adopted the Medical Council of New Zealand's definition of cultural safety (below): Cultural safety can be defined as:

- the need for doctors to examine themselves and the potential impact of their own culture on clinical interactions and healthcare service delivery
- the commitment by individual doctors to acknowledge and address any of their own biases, attitudes, assumptions, stereotypes, prejudices, structures, and characteristics that may affect the quality of care provided
- the awareness that cultural safety encompasses a critical consciousness where health professionals and health care organisations engage in ongoing self-reflection and self-awareness, and hold themselves accountable for providing culturally safe care, as defined by the patient and their communities.

Curtis et al. "Why cultural safety rather than cultural competency is required to achieve health equity". International Journal for Equity in Health (2019) 18:174

Ethics and professional behaviour

Professional standard: Physicians' practice is founded upon ethics, and physicians always treat patients and their families in a caring and respectful manner.

Physicians demonstrate their commitment and accountability to the health and wellbeing of individual patients, communities, populations, and society through ethical practice.

Physicians demonstrate high standards of personal behaviour.

Beliefs and attitudes: Reflect critically on personal beliefs and attitudes, including how these may impact on patient care.

Honesty and openness: Act honestly, including reporting accurately, and acknowledging their own errors.

Patient welfare: Prioritise patients' welfare and community benefit above self-interest.

Accountability: Be personally and socially accountable.

Personal limits: Practise within their own limits and according to ethical principles and professional guidelines.

Self-care: Implement strategies to maintain personal health and wellbeing.

Respect for peers: Recognise and respect the personal and professional integrity, roles, and contribution of peers.

Interaction with professionals: Interact equitably, collaboratively, and respectfully with other health professionals.

Respect and sensitivity: Respect patients, maintain appropriate relationships, and behave equitably.

Privacy and confidentiality: Protect and uphold patients' rights to privacy and confidentiality.

Compassion and empathy: Demonstrate a caring attitude towards patients and endeavour to understand patients' values and beliefs.

Health needs: Understand and address patients', families', carers', and colleagues' physical and emotional health needs.

Medical and health ethics and law: Practise according to current community and professional ethical standards and legal requirements.

Judgement and decision making

Professional standard: Physicians collect and interpret information, and evaluate and synthesise evidence, to make the best possible decisions in their practice.

Physicians negotiate, implement, and review their decisions and recommendations with patients, their families and carers, and other health professionals.

Diagnostic reasoning: Apply sound diagnostic reasoning to clinical problems to make logical and safe clinical decisions.

Resource allocation: Apply judicious and cost-effective use of health resources to their practice.

Task delegation: Apply good judgement and decision making to the delegation of tasks.

Limits of practice: Recognise their own scope of practice and consult others when required.

Shared decision-making: Contribute effectively to team-based decision-making processes.

Leadership, management, and teamwork

Professional standard: Physicians recognise, respect, and aim to develop the skills of others, and engage collaboratively to achieve optimal outcomes for patients and populations.

Physicians contribute to and make decisions about policy, protocols, and resource allocation at personal, professional, organisational, and societal levels.

Physicians work effectively in diverse multidisciplinary teams and promote a safe, productive, and respectful work environment that is free from discrimination, bullying, and harassment.

Managing others: Lead teams, including setting directions, resolving conflicts, and managing individuals.

Wellbeing: Consider and work to ensure the health and safety of colleagues and other health professionals.

Leadership: Act as a role model and leader in professional practice.

Teamwork: Negotiate responsibilities within the healthcare team and function as an effective team member.

Health policy, systems, and advocacy

Professional standard: Physicians apply their knowledge of the nature and attributes of local, national, and global health systems to their own practices. They identify, evaluate, and influence health determinants through local, national, and international policy.

Physicians deliver and advocate for the best health outcomes for all patients and populations.

Health needs: Respond to the health needs of the local community and the broader health needs of the people of Australia and New Zealand.

Prevention and promotion: Incorporate disease prevention, health promotion, and health surveillance into interactions with individual patients and their social support networks.

Equity and access: Work with patients and social support networks to address determinants of health that affect them and their access to needed health services or resources.

Stakeholder engagement: Involve communities and patient groups in decisions that affect them to identify priority problems and solutions.

Advocacy: Advocate for prevention, promotion, equity, and access to support patient and population health needs within and outside the clinical environment.

Resource allocation: Understand the factors influencing resource allocation, promote efficiencies, and advocate to reduce inequities.

Sustainability. Manage the use of healthcare resources responsibly in everyday practice.

Entrustable Professional Activities

Entrustable Professional Activities (EPAs) outline the essential work tasks trainees need to be able to perform in the workplace.

#	Theme	Title
1	**Team leadership**	Lead a team of health and other professionals
2	**Supervision and teaching**	Supervise and teach professional colleagues
3	**Quality improvement**	Identify and address quality systems in health care delivery and workplaces
4	**Clinical assessment, investigation and management**	Clinically assess, investigate and manage the ongoing care of patients
5	**Management of transitions in care**	Manage the transition of patient care between health professionals, providers, and contexts
6	**Communication with patients, communities, third parties and other stakeholders**	Communicate with a range of stakeholders, including patients, communities, professional bodies, businesses, health administration, insurers and employers
7	**Analysis and application of data**	Research within the workplace and environment
8	**Occupational and environmental screening, surveillance and investigations**	Select, organise, and interpret screening, surveillance and diagnostic investigations
9	**Hazard identification and risk assessment**	Workplace and environmental hazard assessment
10	**Fitness for work assessment**	Assess patients' ability to return to work

EPA 1: Team leadership

Theme	Team leadership	OEM-EPA-01
Title	Lead a team of health and other professionals	
Description	This activity requires the ability to: • lead discussions that target and manage appropriate vocational outcomes and/or relevant prudential risk outcomes as occupational health outcomes • articulate individual responsibilities, expertise, and accountability of team members, values-based organisational policies, and ethical frameworks and clinical standards for good clinical governance • understand the range of team members' skills, expertise, and roles • act as a role model • prioritise workload • manage multiple concurrent tasks • engage in conflict management and resolution.	
Behaviours		

Professional practice framework domain	**Ready to perform without supervision** Expected behaviours of a trainee who can routinely perform this activity without needing supervision The trainee will:	**Requires some supervision** Possible behaviours of a trainee who needs some supervision to perform this activity The trainee may:
Medical expertise	• demonstrate clinical competence and skills by effectively supporting team members • synthesise information with other disciplines to develop optimal, goal-centred plans for patients provide coordinated and quality health care for populations or patients as a member of a multidisciplinary team • use evidence-based care to meet the needs of patients or populations • assess and effectively manage clinical risk in various scenarios	• demonstrate adequate knowledge of healthcare issues by interpreting complex information • demonstrate suitable presentation skills • assess the spectrum of problems to be addressed • apply medical knowledge to assess the impact and clinical outcomes of management decisions
Communication	• provide support and motivate patients, populations, health professionals and workplace stakeholders by effective and clear communication • demonstrate a transparent, consultative style by engaging patients, families, carers, relevant professionals, workplace stakeholders and/or the public in shared decision making • work with patients, families, carers, other health professionals and workplace stakeholders to resolve conflict that may arise when planning and aligning goals	• communicate adequately with colleagues • communicate adequately with patients, their families or carers, and/or the public • respect the roles of team members

	• demonstrate rapport with people at all levels by tailoring messages to different stakeholders	
Quality and safety	• develop and implement measures of worker health and safety • identify opportunities to support 'good work' that protects and promotes the health of the worker as well as improve care • review quality and safety incidents • identify opportunities to improve care by participating in surveillance and monitoring of adverse events and 'near misses' • identify activities within systems to reduce errors, improve patient and population safety, and implement cost-effective change • place safety and quality of care first in all decision making • encourage and adopt insights and outcomes-driven scientific innovation from team members for organisational improvement	• participate in safety audits and other activities that affect the quality of practice and management provided providing feedback to the organisation or group • participate in interdisciplinary collaboration to provide effective health services and operational change • use information resources and electronic medical record technology where available
Teaching and learning	• regularly self-evaluate personal professional practice, and implement changes based on the results • actively seek feedback from supervisors and colleagues on their own performance • identify personal gaps in skills and knowledge, and engage in self-directed learning • maintain current knowledge of new technologies, health care priorities and changes of patients' expectations • teach competently by imparting professional knowledge • manage and monitor learner progress, providing regular assessment and feedback	• accept feedback constructively, and change behaviour in response • recognise the limits of personal expertise, and involve other health professionals as needed • demonstrate basic skills in facilitating colleagues' learning
Cultural safety	• demonstrate culturally competent relationships with professional colleagues and patients • demonstrate respect for diversity and difference • take steps to minimise unconscious bias, including the impact of gender, religion, cultural beliefs and socioeconomic background on decision making	• demonstrate awareness of cultural diversity and unconscious bias • work effectively and respectfully with people from different cultural backgrounds

Ethics and professional behaviour	- promote a team culture of shared accountability for decisions and outcomes - demonstrate understanding and acumen for fostering safe organisational culture - encourage open discussion of ethical and clinical concerns - respect differences of multidisciplinary team members - understand the ethics of resource allocation by aligning optimal patients and organisational care - effectively consult with stakeholders, achieving a balance of alternative views - acknowledge personal conflicts of interest and unconscious bias - act collaboratively to resolve behavioural incidents and conflicts such as harassment and bullying	- support ethical principles in clinical decision making - maintain standards of medical practice by recognising the health interests of patients or populations as primary responsibilities - respect the roles and expertise of other health professionals - work effectively as a member of a team - promote team values of honesty, discipline and commitment to continuous improvement - demonstrate understanding of the negative impact of workplace conflict
Judgement and decision making	- evaluate health services and clarify expectations to support systematic, transparent decision making - make balanced decisions when faced with multiple and conflicting perspectives - ensure medical input to organisational decision making - adopt a systematic approach to analysing information from a variety of specialties and workplace stakeholders to make decisions that benefit health care delivery	- monitor services and provide appropriate advice - review new healthcare interventions and resources - interpret appropriate data and evidence for decision making
Leadership, management, and teamwork	- collaborate with and motivate team members - acquire and apply leadership techniques in daily practice - combine team members' skills and expertise in delivering patient care and/or population advice - demonstrate the ability to develop and lead effective multidisciplinary teams by developing and implementing strategies to motivate others - build effective relationships with multidisciplinary team members to achieve optimal outcomes - ensure all members of the team are accountable for their individual practice	- understand the range of personal and other team members' skills, expertise, and roles - acknowledge and respect the contribution of all health professionals involved in patients' care - participate effectively and appropriately in multidisciplinary teams - seek out and respect the perspectives of multidisciplinary team members when making decisions

| Health policy, systems, and advocacy | • advocate for clinical governance, including continuous improvement of health outcomes specific to occupational and environmental medicine in a variety of settings including corporate and non-medical
• advise how stakeholders can adhere to regulatory and authoritative governmental frameworks for health protection at and for work
• engage in appropriate consultation with stakeholders on the delivery of healthcare
• advocate for the resources and support for healthcare teams and workplaces to achieve organisational priorities
• influence the development of organisational policies and procedures to optimise health outcomes and provide 'good work'
• identify the determinants of health of the population, and mitigate barriers to access to care
• remove self-interest from solutions to health advocacy issues | • communicate with stakeholders within the organisation about healthcare delivery
• understand methods used to allocate resources to provide high-quality care
• promote the development and use of organisational policies and procedures |

EPA 2: Supervision and teaching

Theme	Supervision and teaching	OEM-EPA-02
Title	Supervise and teach professional colleagues	
Description	This activity requires the ability to: • provide work-based teaching in a variety of settings • teach professional skills • create a safe and supportive learning environment • plan, deliver, and provide workplace-based assessments • encourage learners to be self-directed and identify learning experiences • supervise learners in day-to-day work and provide feedback • support learners to prepare for relevant assessments.	

Behaviours		

Professional practice framework domain	**Ready to perform without supervision** Expected behaviours of a trainee who can routinely perform this activity without needing supervision The trainee will:	**Requires some supervision** Possible behaviours of a trainee who needs some supervision to perform this activity The trainee may:
Medical expertise	• combine high-quality care with high-quality teaching • explain the rationale underpinning a medicolegally sound structure for making decisions • consider the patient-centric, risk-based, outcomes-driven view during consultations demonstrate the appropriate correlation and reconciliation of relevant actuarial health information (e.g., relevant epidemiological information) with any clinical patient-specific factors when giving advice • encourage the learner to consider the rationale and appropriateness of investigation and management options	• teach learners using basic knowledge and skills
Communication	• establish rapport and demonstrate respect for junior colleagues, medical students, and other health professionals • communicate effectively when teaching, assessing, and appraising learners • actively encourage a collaborative and safe learning environment with learners and other health professionals • encourage learners to tailor communication as appropriate for different patients, such as younger or older people, and different populations	• demonstrate accessible, supportive, and compassionate behaviour

	• support learners to deliver clear, concise and relevant information in both verbal and written communication • listen and convey information clearly and considerately	
Quality and safety	• support learners to deliver quality care and programs that support good work that protects and promotes worker health while maintaining their own wellbeing • apply lessons learned about patient safety by identifying and discussing risks with learners • assess learners' competence, and provide timely feedback to minimise risks to care and worker health • maintain the safety of patients and organisations involved with education, and appropriately identify and action concerns	• observe learners to reduce risks and improve health outcomes
Teaching and learning	• demonstrate knowledge of the principles, processes, and skills of supervision • provide direct guidance to learners in day-to-day work • work with learners to identify professional development and learning opportunities based on their individual learning needs • offer feedback and role modelling • participate in teaching and supervision professional development activities • encourage self-directed learning and assessment • develop a consistent and fair approach to assessing learners • tailor feedback and assessments to learners' goals • seek feedback and reflect on own teaching by developing goals and strategies to improve • establish and maintain effective mentoring through open dialogue • support learners to identify and attend formal and informal learning opportunities • recognise the limits of personal expertise, and involve others appropriately	• demonstrate basic skills in the supervision of learners • apply a standardised approach to teaching, assessment, and feedback to without considering individual learner needs • implement teaching and learning activities that are misaligned to learning goals • adopt a teaching style that discourages learner self-directedness
Research	• clarify junior colleagues' research project goals and requirements, and provide feedback regarding	• guide learners with respect to the choice of research projects

	the merits or challenges of proposed research • monitor the progress of learners' research projects regularly, and may review research projects prior to submission • support learners to find forums to present research projects • encourage and guide learners to seek out relevant research to support practice	• ensure that the research projects planned are feasible and of suitable standards
Cultural safety	• role model a culturally appropriate approach to teaching • encourage learners to seek out opportunities to develop and improve their own cultural safety • encourage learners to consider culturally safe care of Aboriginal and Torres Strait Islander and Māori peoples into patients' management • consider cultural, ethical, and religious values and beliefs in teaching and learning	• function effectively and respectfully when working with and teaching with people from different cultural backgrounds
Ethics and professional behaviour	• apply principles of ethical practice to teaching scenarios • act as a role model to promote professional responsibility and ethics among learners • respond appropriately to learners seeking professional guidance	• demonstrate professional values, including commitment to high-quality clinical standards, compassion, empathy, and respect • provide learners with feedback to improve their experiences
Judgement and decision making	• prioritise workloads and manage learners with different levels of professional knowledge or experience • link theory and practice when explaining professional decisions • promote joint problem solving • support a learning environment that allows for independent decision making • use sound and evidence-based judgement during assessments and when giving feedback to learners • escalate concerns about learners appropriately	• provide general advice and support to learners • use health data logically and effectively to investigate difficult diagnostic problems
Leadership, management, and teamwork	• maintain personal and learners' effective performance and continuing professional development • maintain professional, clinical, research, and/or administrative responsibilities while teaching	• demonstrate the principles and practice of professionalism and leadership in health care • participate in mentor programs, career advice, and general counselling

	• create an inclusive environment whereby the learner feels part of the team	
	• help shape organisational culture to prioritise quality and work safety through openness, honesty, shared learning, and continued improvement	
Health policy, systems, and advocacy	• advocate for suitable resources to provide quality supervision and maintain training standards	• incompletely integrate public health principals into teaching and practice
	• explain the value of health data in the care of patients or populations	
	• support innovation in teaching and training	

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EPA 3: Quality improvement

Theme	Quality improvement	OEM-EPA-03
Title	Identify and address quality systems in health care delivery and workplaces	
Description	This activity requires the ability to: • develop, implement, assess, evaluate and clinically govern systems that protect and/or promote occupational and environmental health • identify and report actual and potential incidents (near miss), including by integrating human factors strategy with incident-related policy • conduct, evaluate, design and govern system improvement activities • adhere to and lead the development of health protection standards and best practice guidelines • audit clinical guidelines, workplace health protection programs, and health outcomes including but not limited to psychosocial health outcomes • contribute to the development of policies and protocols designed to protect patients and enhance healthcare and support good work that protects and promotes worker health outcomes • monitor one's own practice and develop individual improvement plans.	

Behaviours		

Professional practice framework domain	**Ready to perform without supervision** Expected behaviours of a trainee who can routinely perform this activity without needing supervision	**Requires some supervision** Possible behaviours of a trainee who needs some supervision to perform this activity
	The trainee will:	The trainee may:
Medical expertise	• use population health outcomes to identify opportunities for improvement in delivering appropriate care and support good work that protects and promotes worker health • review patients' or population health outcomes to identify opportunities for improvement in delivering appropriate care and support good work that protects and promotes worker health • evaluate environmental and lifestyle health risks, and advocate for healthy lifestyle choices • evaluate environmental and workplace risks to inform programs that support good work and protect and promote the continuous, systematic improvement of health outcomes at and for work • use standardised protocols to adhere to best practice and prevent the occurrence of wrong-site, wrong-patient procedures • review health and safety events • develop and implement, assess and evaluate a medical surveillance program	• contribute to processes on identified opportunities for improvement • recognise the importance of prevention and early detection in clinical practice • use local guidelines to assist patient care decision making

	• regularly monitor personal professional performance • identify risks to health arising from one's own work activities • demonstrate an understanding and delivery of health promotion activities	
Communication	• support patients to have access to, and use, easy-to-understand, high-quality information about health care, workplace health risks and their effective control • support patients to share decision making about their health care • assist patients' access to their health information, as well as complaint and feedback systems • discuss with patients any safety and quality concerns they have relating to their care and the management of workplace health risks • implement the organisation's open disclosure policy	• demonstrate awareness of the evidence for consumer engagement and its contribution to quality improvement in healthcare • apply knowledge of how health literacy might affect the way patients or populations gain access to, understand, and use health information
Quality and safety	• demonstrate safety skills, including infection control, adverse event reporting, and effective clinical handover • participate in organisational quality and safety activities, including morbidity and mortality reviews, clinical incident reviews, workplace injury and illness reviews, root cause analyses, and corrective action preventative action plans • participate in systems for surveillance and monitoring of adverse events and 'near misses', such as workplace injuries and illness events and near misses, including reporting such events • identify improvement opportunities for improvement and report appropriately • use health and safety audits, data and outcomes, learnings from incidents, and complaints to improve the management of workplace health and safety risks • discuss risk management approaches and systems used by corporate organisations	• demonstrate understanding of a systematic approach to improving the quality and safety of healthcare
Teaching and learning	• translate quality improvement approaches and methods into practice • participate in professional training in quality and safety to ensure a contemporary approach to safety system strategies	• work within organisational quality and safety systems for the delivery of clinical care • use opportunities to learn about safety and quality theory and systems

	• supervise and manage the performance of junior colleagues in the delivery of high-quality, safe care	
Research	• use protocol for human research that is approved by a human research ethics committee, in accordance with the national statement on ethical conduct in human research	• demonstrate that patient participation in research is voluntary and that patients' have understanding about the purpose, methods, demands, risks, and potential benefits of the research
Cultural safety	• undertake professional development opportunities that address the impact of cultural bias on health outcomes	• communicate effectively with patients from culturally and linguistically diverse backgrounds
Ethics and professional behaviour	• align improvement goals with the priorities of the organisation • contribute to developing an organisational culture that enables and prioritises worker health and safety	• comply with professional regulatory requirements and codes of conduct
Judgement and decision making	• use decision-making support tools, such as guidelines, protocols, pathways, and reminders • analyse and evaluate current processes to improve the management of workplace health and safety risks	• access information and advice from other health practitioners to identify, evaluate, and improve patients' care management
Leadership, management, and teamwork	• formulate and implement quality improvement strategies as a collaborative effort involving all key health professionals and other stakeholders such as employers, worker representatives and health and safety professionals • support, facilitate, build and clinically govern multidisciplinary team activities to reduce workplace health and safety risks, and promote interdisciplinary programs of education • actively involve other stakeholders like occupational hygienists in workplace improvement projects	• demonstrate attitudes of respect and cooperation among members of different professional teams • partner with clinicians and managers to ensure patients receive appropriate care and information on their care
Health policy, systems, and advocacy	• participate in all aspects of the development, implementation, evaluation, and monitoring of governance processes • participate regularly in multidisciplinary meetings where quality and safety issues are standing agenda items, and where innovative ideas and projects for improving workplace	• maintain a dialogue with service managers about issues that affect patient care • contribute to relevant organisational policies and procedures • shape an organisational culture that prioritises safety and quality through openness, honesty, learning, and quality improvement

health and safety
are actively encouraged
- measure, analyse, and report
a set of workplace-specific
process of risk management and
health and safety indicators,
participate in the design
and implementation of
organisational systems for:
  » defining the scope of
    workplace health risks
  » performance monitoring
    and management
  » clinical, and safety and quality
    education and training

EPA 4: Clinical assessment, investigation and management

Theme	Clinical assessment, investigation and management	OEM-EPA-04
Title	Clinically assess, investigate and manage the ongoing care of patients	
Description	This activity requires the ability to:	

Description — This activity requires the ability to:

- identify and access sources of relevant information about patients
- take patient histories including occupational and environmental exposure histories
- examine patients
- synthesise findings to develop provisional and differential diagnoses
- discuss findings with patients, families and/or carers and employers, with appropriate consent and consideration of privacy
- choose appropriate medicines based on an understanding of pharmacology, taking into consideration age, comorbidities, potential drug interactions, risks, and benefits
- share findings to other health professionals and other relevant parties
- determine fitness to work
- generate multidisciplinary biopsychosocial management plans
- develop return to work programs.

Behaviours

Professional practice framework domain	**Ready to perform without supervision** Expected behaviours of a trainee who can routinely perform this activity without needing supervision The trainee will:	**Requires some supervision** Possible behaviours of a trainee who needs some supervision to perform this activity The trainee may:
Medical expertise	- elicit an accurate, organised, and problem-focused medical history considering occupationally and environmentally related risk factors - elicit a suitable mental health history that includes psychosocial workplace hazards that increase the risk of physical and psychological conditions in the workplace - discuss non-work related mental health conditions that may be impacting on work - perform a full physical examination to establish the nature and extent of problems - perform a mental state examination where required - synthesise and interpret findings from the history and examination to devise the most likely provisional diagnoses via reasonable differential diagnoses - identify and perform suitable investigations - develop an evidence-based model for disease and injury causation	- elicit patient-centred histories, considering psychosocial factors - perform accurate physical examinations - perform statutory health surveillance - recognise and correctly interpret abnormal findings - synthesise pertinent information to direct the clinical encounter and diagnostic categories - demonstrate an understanding of disease causation - develop appropriate management plans - be aware of potential side-effects and practical prescription points, such as medication compatibility and monitoring in response to therapies - select medicines for common conditions appropriately, safely, and accurately - demonstrate understanding of the rationale, risks, benefits, side

	• assess the severity of problems, the likelihood of complications, and clinical outcomes • develop management plans based on relevant guidelines, workplace information and c the patients' circumstances • develop, implement, assess and evaluate health surveillance programs • identify the patients' disorders requiring pharmacotherapy • consider non-pharmacologic therapies • consider age, chronic disease status, lifestyle factors, allergies, potential drug interactions, and patient preference prior to prescribing a new medication • plan for follow-up and monitoring	effects, contraindications, dosage, and drug interactions • identify and manage adverse events • describe and assign causation of injuries and diseases to workplace exposures and events using evidence-based medicine •
Communication	• communicate openly, listen, and take patients' concerns seriously, giving them adequate opportunity to ask questions • provide information to patients and their family and/or carers to enable them to make a fully informed decision from various diagnostic, therapeutic, and management options • provide information to co-workers and/or workplaces as medically, ethically appropriate and legally required • communicate clearly, effectively, respectfully, and promptly with other health professionals involved in patients' care • demonstrate suitable report writing and presentation skills • discuss and evaluate the risks, benefits, and rationale of treatment options, making decisions in partnership with patients • write clear and legible prescriptions in plain language, and include specific indications for the anticipated duration of therapy • educate patients about the intended use, expected outcomes, and potential side effects for each prescribed medication, addressing the common, rare, and serious effects at the time of prescribing to improve patients' adherence to pharmacotherapy	• anticipate, read, and respond to verbal and non-verbal cues • demonstrate active listening skills • communicate patients' situations to colleagues, including senior clinicians • provide information to co-workers and/or workplaces as medically, ethically appropriate and legally required • discuss and explain the rationale for treatment options with patients, families or carers • explain the benefits and burdens of therapies, considering patients' individual circumstances • write clearly legible scripts or charts using generic names of the required medication in full, including mg/kg/dose information and all legally required information • seek further advice from experienced clinicians or pharmacists when appropriate • provide instructions on medication administration effects and side effects

	- communicate with patients and families or carers about the benefits and risks of proposed therapies
	- describe how the medication should and should not be administered, including any important relationships to food, time of day, and other medicines being taken
	- ensure patients' understanding by repeating back pertinent information, such as when to return for monitoring and whether therapy continues after this single prescription
	- identify patients' concerns and expectations, and explain how medicines might affect their everyday lives
	- explore patients' understanding of and preferences for non-pharmacological and pharmacological management
	- provide appropriate information is available at all steps of the medicine management pathway

Quality and safety	- demonstrate safety skills, including infection control, adverse event reporting and effective clinical handover - recognise and effectively deal with aggressive and violent patient behaviours through appropriate training - obtain informed consent before undertaking any investigation or providing treatment (except in an emergency) - ensure patients are informed of the material risks associated with any part of proposed management plans - review medicines regularly to reduce non‑adherence, and monitor treatment effectiveness, possible side effects, and drug interactions, ceasing unnecessary medicines - use electronic prescribing tools where available, and access electronic drug references to prevent errors caused by drug interactions and poor handwriting - prescribe new medicines only when they have been demonstrated to be safer or more effective at improving	- perform hand hygiene, and take infection control precautions at appropriate moments - take precaution against assaults from confused or agitated patients, ensuring appropriate care of patients - document history and physical examination findings, and synthesise with clarity and completeness - check the dose before prescribing - monitor side effects of medicines prescribed - identify medication errors and institute appropriate measures - use electronic prescribing systems safely - rationalise medicines to avoid polypharmacy - monitor medicines for efficacy and safety - review medicines and interactions, and cease where appropriate

	patient-oriented outcomes than existing medicines	
	- participate in clinical audits to improve prescribing behaviour, including an approach to polypharmacy and prescribing cascade	
	- report suspected adverse events to the Advisory Committee on Medicines, and record it in patients' medical records	
Teaching and learning	- set defined objectives for clinical teaching encounters, and solicit feedback on mutually agreed goals - regularly reflect upon and self-evaluate professional development - obtain informed consent before involving patients in teaching activities - turn clinical activities into an opportunity to teach, appropriate to the setting - use continuously updated software for computers and electronic prescribing programs - check patients understand management plans, including adherence issues	- set unclear goals and objectives for self-learning - self-reflect infrequently - deliver teaching considering learners' level of training - undertake continuing professional development to maintain currency with prescribing guidelines - reflect on prescribing, and seek feedback from a supervisor
Research	- demonstrate the ability to search for, find, compile, analyse, interpret, and evaluate information relevant to the research subject - critically appraise research material to ensure any new medicine improves patient-oriented outcomes more than older medicines, and not just more than placebo - use sources of independent information about medicines that provide accurate summaries of the available evidence on new medicines	- refer to guidelines and medical literature to assist in clinical assessments when required - demonstrate an understanding of the limitations of evidence and the challenges of applying research in daily practice - make therapeutic decisions according to the best evidence - recognise where evidence is limited, compromised, or subject to bias or conflict of interest
Cultural safety	- use plain-language patient education materials, and culturally safe language - demonstrate culturally safe communication and care for Aboriginal and Torres Strait Islander and Māori peoples, and members of other cultural groups - use a professional interpreter, health advocate, or a family or community member to assist	- display respect for patients' cultures, and attentiveness to social determinants of health - display an understanding of at least the most prevalent cultures in society, and an appreciation of their sensitivities - appropriately access interpretive or culturally focused services - appreciate patients' cultural and religious backgrounds,

	in communication with patients, and understand the potential limitations of each acknowledge patients' beliefs and values, and how these might impact on health	attitudes, and beliefs, and how these might influence the acceptability of pharmacological and non-pharmacological management approaches
	• offer patients effective choices based on their expectations of treatment, health beliefs, and cost	
	• interpret and explain information to patients at the appropriate level of their health literacy	
	• anticipate queries to help enhance the likelihood of medicines being taken as advised	
Ethics and professional behaviour	• demonstrate professional values, including compassion, empathy, respect for diversity, integrity, honesty, and partnership to all patients	• demonstrate professional conduct, honesty, and integrity
	• hold information about patients in confidence, unless the release of information is required by law or public interest	• consider patients' decision-making capacity
	• assess patients' capacity for decision making, involving a proxy decision maker appropriately	• identify patients' preferences regarding management and the role of families in decision making
	• provide information to patients about: » what the medicine is for » what it does » potential side effects » how to take it » when it should be stopped	• not advance personal interest or professional agendas at the expense of patient or social welfare
		• consider the efficacy of medicines in treating illnesses, including the relative merits of different non-pharmacological and pharmacological approaches
	• make prescribing decisions based on good safety data when the benefits outweigh the risks involved	• follow regulatory and legal requirements and limitations regarding prescribing
	• demonstrate understanding of the ethical implications of pharmaceutical industry-funded research and marketing	• follow organisational policies regarding pharmaceutical representative visits and drug marketing
Judgement and decision making	• apply knowledge and experience to identify patients' problems, making logical, rational decisions, and acting to achieve positive outcomes for patients	• demonstrate clinical reasoning by gathering focused information relevant to patients' care
	• use a holistic approach to health considering comorbidity, uncertainty, and risk	• recognise personal limitations and seek help in an appropriate way when required
	• use the best available evidence for the most effective therapies and interventions to ensure quality care	• recognise personal limitations and seek help in an appropriate way when required
	• use a systematic approach to select treatment options	• consider the following factors for all medicines: » contraindications » cost to patients, families, and the community

	• use medicines safely and effectively to get the best possible results • choose suitable medicines only if medicines are considered necessary and will benefit patients • prescribe medicines appropriately to patients' clinical needs, in doses that meet their individual requirements, for a sufficient length of time, with the lowest cost to them • evaluate new medicines in relation to their possible efficacy and safety profile for individual patients	» funding and regulatory considerations » generic versus brand medicines » interactions
Leadership, management, and teamwork	• work effectively as a member of multidisciplinary teams, including non-health professionals to achieve the best health outcome for patients • demonstrate awareness of colleagues in difficulty, and work within the appropriate structural systems to support them while maintaining patient safety • interact with medical, pharmacy, and nursing staff to ensure safe and effective medicine use	• share relevant information with members of the health care team • work collaboratively with pharmacists • participate in medication safety and morbidity and mortality meetings
Health policy, systems, and advocacy	• participate in health promotion, disease prevention and control, screening, and reporting notifiable diseases • aim to achieve the optimal cost-effective patient care to allow maximum benefit from the available resources • choose medicines in relation to comparative efficacy, safety, and cost-effectiveness against medicines already on the market • prescribe for individual patients, considering history, current medicines, allergies, and preferences, ensuring that healthcare resources are used wisely for the benefit of patients	• identify and navigate components of the healthcare system relevant to patients' care • identify and access relevant community resources to support patient care • prescribe in accordance with the organisational policy

EPA 5: Management of transitions in care

Theme	Management of transitions in care	AT-EPA-05
Title	Manage the transition of patient care between health professionals, providers, and contexts	
Description	This activity requires the ability to: • manage a transition of patient care • identify the appropriate healthcare providers and other stakeholders relevant to work outcomes and health outcomes with whom to share the patient's personal and/or health information • exchange pertinent, contextually appropriate and relevant information about the examinee or patient • act as an advocate for optimal health outcomes • perform this activity in multiple settings that are appropriate to occupational and environmental medicine including outpatient, inpatient, workplace, ambulatory, and emergency, and safety-critical settings.	

Behaviours		

[Professional practice framework](#) domain	**Ready to perform without supervision** Expected behaviours of a trainee who can routinely perform this activity without needing supervision The trainee will:	**Requires some supervision** Possible behaviours of a trainee who needs some supervision to perform this activity The trainee may:
Medical expertise	• facilitate an optimal transition of healthcare for patients • identify key risks for patients during transition and manage the transition in a demonstrably risk-based, outcomes-driven way. • recognise changes in patients' conditions, and provide values-driven, structured recommendations in a medicolegally appropriate, evidence-based, and authoritative framework on how to manage them	• understand the details of patients' conditions, illness severity, and potential emerging issues with appropriate actions • understand how values help to structure medicolegally appropriate frameworks to underpin evidence-based, authoritative reasoning for clinical judgement • provide accurate summaries of patients' information with accurate identification of problems or issues
Communication	• write relevant and appropriately detailed medical record entries, including clinical assessments and management plans • write comprehensive and accurate summaries of care, including discharge summaries, clinic letters, and transfer documentation • initiate and maintain verbal communication with other health professionals, when required • communicate clinical case details to other healthcare professionals and to non-healthcare audiences in a way that is demonstrably risk-based and outcomes-driven	• communicate clearly with clinicians, other caregivers and relevant non-clinicians • use standardised verbal and written templates to improve the reliability of information transfer and prevent errors and omissions • communicate accurately and in a timely manner to ensure that the transition between settings is risk-based and outcomes-focussed, and ensures the continuity, safety and quality of healthcare

	• communicate in an effective, appropriate and timely way with t stakeholders about changing healthcare requirements that are unreasonably excessive and/or unnecessary and/or clinically inappropriate • communicate with patients, employers, insurers and colleagues about transition of care • engage and support relevant parties in decision-making where and as appropriate	
Quality and safety	• identify patients at risk of a poor transition of healthcare, and mitigate this risk • use electronic tools (where available) to securely store, control and transfer patient information • use informed consent processes, including written consent where and as appropriate, to safeguard the release and exchange of information • demonstrate understanding the medicolegal context of written communications	• complete handover • mitigate risks if handover is incomplete • follow up outstanding results or procedures by receiving units and clinicians • secure patient information by adhering to relevant legislation regarding personal information and privacy
Teaching and learning	• integrate clinical education in handover sessions and other transition of care meetings • tailor clinical education to the level of the professional parties involved • act as an advocate for optimal vocational outcomes, in both clinical and non-clinical settings	• teach junior colleagues during handover
Cultural safety	• communicate with careful consideration to health literacy, language barriers, and cultural safety about patient preferences, and whether they are realistic and possible, respecting patient choices • recognise the timing, location, privacy, and appropriateness of sharing information with patients and their families or carers	• include relevant information regarding patients' cultural or ethnic background in handovers, and whether an interpreter is required
Ethics and professional behaviour	• demonstrate a clear understanding of patient privacy and legislation surrounding this especially in the corporate setting where there are non-privacy-specific legislative frameworks that interface closely or inherently with privacy-specific legislation • manage the contextually appropriate disclosure, provision, exchange, withholding and/or	• maintain respect for patients, families, carers, and other health professionals, including respecting privacy and confidentiality • engage in issues around patient confidentiality and privacy.

	omission of health information and personal information	
	demonstrate understanding of the clinical, ethical, and legal rationale for disclosing or withholding information	
	interact in a collegiate and collaborative way with professional colleagues during transitions of healthcare	
Judgement and decision making	choose appropriate facility, setting, or provider for patient care	use a medicolegally sound structure to underpin the consideration and prioritisation patients' issues with evidence-based, authoritative reasoning
	demonstrate understanding of the additional complexity related to some types of information, such as genetic information and blood-borne-virus status, and seek appropriate, timely advice about disclosure or withholding of such information to/from relevant parties	recognise personal limitations and seek help in an appropriate way when required
Leadership, management, and teamwork	share and delegate the workload of transition of care	recognise factors that impact on the transfer of care, and help subsequent health professionals to understand the issues to continue care
	demonstrate understanding of medical governance of patient care, and the differing roles of team members	work to overcome the potential barriers to continuity of care, appreciating the role of handover in overcoming these barriers
	show respect for the roles and expertise of other health professionals, and work effectively as a member of professional teams to address risks systematically and ensure consistent health outcomes	
	provide the opportunity for patients' engagement and participation with multidisciplinary teams that include healthcare professionals and non-healthcare team members	
	support transitions in healthcare across healthcare settings and changing health policy.	
Health policy, systems, and advocacy	contribute to the appropriate development, implementation, review and disestablishment of policies, processes, frameworks and principles for managing risks, and identify strategies for continuous improvement in transition of care	factor transport issues and costs to patients into arrangements for transferring patients to other settings
	use optimal handover procedures continuation of care between healthcare providers and also other relevant health protection and/or work goods and services	
	engage in organisational processes to improve health outcomes from transitions	

of care using medically appropriate
risk-based framework, such as
formal surveys or follow-up phone
calls during and after clinical
management

EPA 6: Communication with patients, communities, third parties and other stakeholders

Theme	Communication with patients, communities, third parties and other stakeholders	OEM-EPA-06
Title	Communicate with a range of stakeholders, including patients, communities, professional bodies, businesses, health administration, insurers, and employers	
Description	This activity requires the ability to: - communicate with appropriate stakeholders given the specific context - communicate within an appropriate cultural context and include family and/or carers and other team members - apply written consent and privacy considerations when involving the employer - manage employee/ worker / insurer / employer expectations when not in a patient treating role - adopt a patient-centred, employee or client perspective, ensuring consent to share relevant medical information is acquired - select and use appropriate modalities and communication strategies - structure conversations intentionally - verify understanding of information conveyed - negotiate a mutually agreed management plan when managing patients - develop and implement a plan or report for ensuring actions occur - ensure the assessment, management and or rehabilitation plans are documented.	

Behaviours		
Professional practice framework domain	**Ready to perform without supervision** Expected behaviours of a trainee who can routinely perform this activity without needing supervision	**Requires some supervision** Possible behaviours of a trainee who needs some supervision to perform this activity
	The trainee will:	The trainee may:
Medical expertise	- anticipate and be able to correct any misunderstandings patients may have about their conditions and/or risk factors - recognise occupational factors relevant to illness that need enhancement or clarification - write a timely letter or report containing a clear opinion back to the referring doctor or party - use evidence-based guidelines to inform opinion - Use internally consistent recommendations and make use of best practice guidelines and evidence - develop a written management, rehabilitation and/or return to work plan in conjunction with all relevant parties - coordinate medical aspects of care with other professionals towards	- interpret information within a referral letter - recognise information that needs enhancement or clarification - email and internet use and, where applicable, electronic discharge summaries and prescribing - apply knowledge of the scientific basis of health and disease to the management of patients - demonstrate an understanding of the clinical problem being discussed - formulate management plans in partnership with patients

	attaining appropriate time defined realistic outcome measures.	
	• monitor goals and defined outcome measures and keep patients and significant others, including the employer where appropriate, informed of progress towards this plan	
	• use the opportunity for work site visits to explore an issue more holistically, in a broader context and in terms of worker health and any risk management	
	• seek to understand the concerns and goals of patients, and plan management in partnership with them and their family/whanau	
	• educate patients about the work/environmental relatedness of their conditions	
	• provide information to patients to enable them to make informed decisions about diagnostic, therapeutic, and management options	
Communication	• use an appropriate communication strategy and modalities for communication, such as emails, face-to-face, or phone calls • provide information to patients and referrers • write timely, concise, internally consistent, evidence based reports • use plain language, avoiding jargon, acronyms, and complex medical terms • obtain consent to discuss patient management plans with patients primary health care providers • communicate effectively with workers, unions, management and OHS staff on all relevant occupational health areas for an organisation • manage difficult conversations, such as those regarding performance, fitness for work and community outrage • confirm patient understanding of discussions and potential management and rehabilitation plans • recognise the role of family or employers in communication • identify and mediate differences between the expectations of employers, supervisors, return-to-work coordinators and workers communicate effectively with policy and decision-makers	• manage a consultation involving a third party, such as employer, in conflict with an employee • communicate in written and verbal formats with relevant employers, return to work coordinators and insurers • establish rapport with referring doctors • select appropriate modes of communication • engage patients in discussions, avoiding the use of jargon • check patients' understanding of information • adapt communication style in response to patients' age, developmental level, and cognitive, physical, cultural, socioeconomic, and situational factors • collaborate with patient liaison officers as required • encourage and answer questions

	• manage communication with the media as required • differentiate between objective and subjective arguments	
Quality and safety	• recognise patients' vulnerability in terms of their history and physical examination • implement policies and procedures to manage complaints and negative feedback • provide information to patients in a way they can understand before asking for their consent • consider people's capacity for decision making and consent particularly if there is a history or signs of cognitive impairment	• inform patients of the material risks associated with the proposed management plan • treat information about patients as confidential
Teaching and learning	• discuss and explain the purpose, nature, and extent of the assessments and third-party assessment to be conducted • obtain informed consent or other valid authority before involving patients in teaching or research	• respond appropriately to information sourced by patients, and to patients' knowledge regarding their condition
Research	• refer to evidence-based guidelines • conduct research in accordance with prescribed ethical and institutional research guidelines • provide easily understandable information to patients that is based on guidelines issued by the relevant research authorities and guidelines • obtain an informed consent or other valid authority before involving patients in research	• refer to evidence-based clinical guidelines • demonstrate an understanding of the limitations of the evidence and the challenges of applying research in daily practice
Cultural safety	• manage barriers to effective communication within teams • demonstrate culturally safe communication with Aboriginal and Torres Strait Islander and Māori peoples • effectively communicate with members of other cultural groups by meeting patients' specific language, cultural, and communication needs • use qualified language interpreters or cultural interpreters to help meet patients' communication needs • provide plain language and culturally appropriate written materials to patients and clients when possible	• identify when to use interpreters • allow enough time for communication across linguistic and cultural barriers
Ethics and professional behaviour	• describe the procedure for obtaining consent for the release of confidential medical records and images to a third party	• manage alternative and conflicting views from significant others • manage the ethical issues of the two roles of communication with patient

	- identify secure storage of medical information - describe the special reporting requirements and obligations of a medical assessment performed on behalf of a third party, including presentation of information to lawyers and insurers - explain to the patient the purpose of the assessment and the reporting arrangements and seek consent to collect and release relevant medical information - recognise local laws and workers compensation guidelines on incapacity payments and return to work - encourage and support patients to be well informed about their health, and to use this information wisely when they make decisions - recognise social determinants of health when caring for patients - demonstrate respectful professional relationships with patients and colleagues - prioritise honesty, patients' welfare, and community benefit above self-interest - develop a high standard of personal conduct, consistent with professional and community expectations - outline obligations to patients and their management when conducting third party assessments - support patients' rights to seek second opinions - obtain written consent and discuss with patients when communicating with employers about management and rehabilitation - recognise personal health, symptoms of mental health changes and avenues for self-management.	and communication with external agencies - respect the preferences of patients - communicate appropriately, consistent with the context, and respect patients' needs and preferences - maximise patient autonomy, and support their decision making - avoid sexual, intimate, and/or financial relationships with patients - demonstrate a caring attitude towards patients - respect patients, including protecting their rights to privacy and confidentiality - behave equitably towards all, irrespective of gender, age, culture, socioeconomic status, sexual preferences, beliefs, contribution to society, illness-related behaviours or the illness itself - use social media ethically and according to legal obligations to protect patients' confidentiality and privacy
Leadership, management, and teamwork	- coordinate a team, including a health team of nurses and allied health professionals in an occupational health unit of institutions - use conflict resolution skills to facilitate team interactions - involve health managers as part of a multidisciplinary team to obtain resources, data and access to services for better worker outcomes	- work effectively as part of an occupational health and safety team that may include risk engineers, occupational health nurses, and environmental scientists occupational hygienists, ergonomists - answer questions from team members - summarise, clarify, and communicate responsibilities of healthcare team members

	• communicate effectively with team members involved in patients' care or rehabilitation, and with patients, families and carers • discuss collaboratively medical assessments, treatment, management and rehabilitation plans, and investigations with patients and rehabilitation • facilitate an environment where all team members feel they can contribute and their opinion is valued • communicate accurately and succinctly, and motivate others on the healthcare team	• keep healthcare team members focused on patient outcomes

Health policy, systems, and advocacy	• collaborate with other services, such as community health centres and consumer organisations, to help patients navigate the healthcare and workers compensation systems
	• demonstrate ability to detail legal and other obligations of parties
	• describe the special reporting requirements of a medical assessment performed on behalf of a third party
	• recognise relevant state, hospital and workplace policies and guidelines in preparing reports
	• source evidence-based information and prepare specific medicolegal communication, including:
	  » expert opinion report
	  » giving evidence in court
	  » preparing an opinion for the community advocate or guardianship tribunal
	  » give an objective and considered opinion
		• communicate with and involve other health professionals as appropriate
		• source information and prepare specific medicolegal communication, including:
		  » letter of support on behalf of the patient
		  » police statement
		  » reports for insurers and other relevant third parties

EPA 7: Analysis and application of data

Theme	Analysis and application of occupational health data	OEM-EPA-07
Title	**Research within the workplace and environment**	
Description	This activity requires the ability to: • Find, assess and apply appropriate evidence to the management of workplaces, group of workers and individual workers. • Apply epidemiological principles to the management of problems in the workplace	

Behaviours		

Professional practice framework domain	**Ready to perform without supervision** Expected behaviours of a trainee who can routinely perform this activity without needing supervision The trainee will:	**Requires some supervision** Possible behaviours of a trainee who needs some supervision to perform this activity The trainee may:
Medical expertise	• demonstrate understanding of the principles of evidence-based medicine, the limitations of evidence and the challenge of applying research findings to daily clinical practice and in support of good work that protects and promotes worker health • appraise support for an alleged causal association between a health effect and an exposure • differentiate between the expression of health-related phenomena as frequencies or rates • discuss the potential effect of chance (random variation) on measurements, observations and the results of an investigation • discuss the need for insight sufficient to depict the truth and fairly interpret the findings of a study • use the steps of an outbreak investigation to address infectious diseases or other disease clusters within a work environment	• apply principles of data collection and interpretation within an occupational and environmental setting • apply the principles of validity, reliability, sensitivity and specificity of data collection methodologies in the context of health surveillance • demonstrate a practical knowledge of confounders and bias and how to account for these within a medical surveillance program or the interpretation of reports of epidemiological studies in occupational or environmental settings. • discuss health data collection and management within current legislative systems including guidelines around chemical exposure and privacy legislation.
Communication	• present scientific information in an understandable form for both managers and workers. • communicate principles of causation and causal relationships	
Quality and safety	• apply appropriate quality processes to the collection and storage of health and health surveillance data	
Teaching and learning		

Research	• find relevant information in the general medical literature, the specialist occupational health literature, and the grey literature including government policies, standards, codes and recommendations	• perform an efficient and comprehensive search of the medical literature
Cultural safety	• explain scientific information and workplace data to different populations and ethnicities	
Ethics and professional behaviour	• manage individual and workplace population data in an ethical manner.	• display a knowledge of relevant legislation
Judgement and decision making	• demonstrate and articulate clear decision making with points for and against	
Leadership, management, and teamwork	• lead a team of researchers, managers, and participants within a work environment	
Health policy, systems, and advocacy	• apply international, national, state/territory and local regulations, policies and codes, to the management of workplace data	

EPA 8: Occupational and environmental screening, surveillance, and investigations

Theme	Occupational and environmental screening, surveillance, and investigations	OEM-EPA-10
Title	Select, organise, and interpret screening, surveillance, and diagnostic investigations	
Description	This activity requires the ability to: • select, plan, and use evidence-based clinically and occupationally appropriate screening, surveillance and diagnostic investigations • prioritise patients receiving investigations using a risk-based approach evaluate the anticipated value of the investigation • work in partnership with patients and their families or carers to facilitate choices that are right for them • work in partnership with employers and other stakeholders to ensure evidence based occupational screening, surveillance, and investigations, including assisting in meeting their statutory requirements • provide aftercare for patients as needed • interpret the results and outcomes of investigations at both a patient and worker population level as needed • communicate the outcome of investigations to patients and other key stakeholders such as employers and regulators.	

Behaviours		
Professional practice framework Domain	**Ready to perform without supervision** Expected behaviours of a trainee who can routinely perform this activity without needing supervision The trainee will:	**Requires some supervision** Possible behaviours of a trainee who needs some supervision to perform this activity The trainee may:
Medical expertise	• use screening tools used in occupational medicine including those used in determining fitness to work • develop, implement, assess and evaluate evidence-based health surveillance programs including legislated programs for hazardous substances • choose evidence-based investigations and frame them as an adjunct to comprehensive clinical assessments • assess patients' concerns, and determine the need for specific tests that are likely to result in overall benefit • develop plans for investigations, identifying their roles and timing • recognise and correctly interpret abnormal findings, considering patients' specific circumstances, and act accordingly	• demonstrate the principles around biological monitoring and biological effect monitoring • outline the principles of medical surveillance including pharmacodynamics and pharmacokinetics • describe legislative requirements around occupational health surveillance • provide rationale for investigations • understand the significance of abnormal test results and act on these • consider patient factors and comorbidities • consider age-specific reference ranges

Communication	• explain to patients their legal obligations with regard to occupational health surveillance • explain to patients the potential benefits, risks, costs, burdens, and side effects of each option, including the option to have no investigations • use clear and simple language, and check that patients understand the terms used and agree to proceed with proposed investigations • identify patients' concerns and expectations, providing adequate explanations on the rationale for individual test ordering • confirm whether patients have understood the information they have been given and the need for more information before deciding • use written or visual material or other aids that are accurate and up to date to support discussions with patients • explain findings or possible outcomes of investigations to patients, families, carers and the employer with appropriate consents in place • give information that patients may find distressing in a considerate way	• discuss the indications, risks, benefits, and complications of investigations with patients before ordering investigations • explain the results of investigations to patients • arrange investigations, providing accurate and informative referrals, and liaise with other services where appropriate
Quality and safety	• identify adverse outcomes that may result from a proposed investigation, focusing on patients' individual situations	• consider safety aspects of investigations when planning them • seek help with interpretation of test results for less common tests or indications or unexpected results
Teaching and learning	• use appropriate guidelines, evidence sources, and decision support tools • participate in clinical audits to improve test ordering strategies for diagnoses and screening	• undertake professional development to maintain currency with investigation guidelines
Research	• provide patients with relevant information if a proposed investigation is part of a research program • obtain written consent from patients if the investigation is part of a research program	• refer to evidence-based clinical guidelines • consult current research on investigations
Cultural safety	• respect patients' views and preferences about any proposed investigation and the adverse outcomes they are most concerned about	• consider patients' cultural and religious backgrounds, attitudes, and beliefs, and how these might influence the acceptability of proposed investigations

Ethics and professional behaviour	- remain within the scope of authority given by patients (except for emergencies) - discuss with patients how decisions will be made once the investigation has started, and the patient is not able to participate in decision making - respect patients' decisions to refuse diagnostic investigations, even if their decisions may not be appropriate or evidence-based - advise patients there may be additional costs, which patients may wish to clarify before proceeding - explain the expected benefits as well as the potential burdens and risks of any proposed investigation before obtaining informed consent or other valid authority - demonstrate awareness of complex issues related to genetic information obtained from investigations, and subsequent disclosure of such information	- identify appropriate proxy decision makers when required - choose not to investigate in situations where it is not appropriate for ethical reasons - practise within current ethical and professional frameworks - practise within own limits, and seek help when needed - involve patients in decision making regarding investigations, obtaining the appropriate informed consent, including financial consent, if necessary
Judgement and decision making	- evaluate the costs, benefits, and potential risks of each investigation in a clinical situation - adjust the investigative path depending on test results received - consider whether patients' conditions may get worse or better if no tests are selected	- choose the most appropriate investigation for the clinical scenario in discussion with patients - recognise personal limitations and seek help in an appropriate way when required
Leadership, management, and teamwork	- consider the role other members of the healthcare team might play, and what other sources of information and support are available - consider the role that other stakeholders like employers, unions and other medical specialists might play, and what other sources of information and support are available - check results in a timely manner, taking responsibility for following up results	demonstrate understanding of what parts of an investigation are provided by different doctors or health professionals
Health policy, systems, and advocacy	- select and justify investigations regarding the pathological basis of disease, appropriateness, utility, safety, and cost effectiveness - consider resource utilisation through peer review of testing behaviours	

- engage with employers to gain support for recommended health surveillance programs

EPA 9: Hazard identification and risk assessment

Theme	Hazard identification and risk assessment	OEM-EPA-11
Title	Workplace and environmental hazard assessment	
Description	This activity requires the ability to: • identify, assess and manage all workplace and environmental hazards that may have an effect on a patient's health • obtain the nature and extent of likely relevant exposures from a patients or community members, history and other appropriate records • describe the causation of injuries and diseases through an evidence-based model • interpret reports around workplace and/or environmental hazards • comment on workplace and/or environmental hazards potential health effects and the mitigations • relate and make persuasive recommendations on important hazards within the workplace and/or environment • outline processes to review current risk control measures • anticipate and alleviate potential hazards, including risk assessment and management principles. • prepare a clinical report recognising the extent of exposure when defining the work-relatedness or environment-relatedness of a disease.	

Behaviours		

Professional practice framework domain	**Ready to perform without supervision** Expected behaviours of a trainee who can routinely perform this activity without needing supervision The trainee will:	**Requires some supervision** Possible behaviours of a trainee who needs some supervision to perform this activity The trainee may:
Medical expertise	• develop, implement, assess and evaluate a system to identify and manage workplace and environmental hazards • describe routes of exposure/pathological processes associated with hazards • describe the potential health effects of common and important hazards from substances used in workplaces and environmental settings • assign causal links between exposures and diseases/injuries • explain the mechanism of injury or disease • offer evidence both for and against for controversial conditions • predict the likely properties of a class of substance • apply the underlying principles of hazards to practical situations in familiar and unfamiliar workplaces and environmental settings	• describe a hazard and a risk, with reference to likelihood and severity • identify hazards in various workplaces and environmental settings • identify potential sources of hazards • outline processes to assess and where appropriate alleviate potential hazards, including risk assessment and management principles

	• apply simple numerical reasoning to discussions concerning physical agents • anticipate the likely route of exposure and rapidity of action based on the properties of a listed substance or a substance with similar properties • complete a psycho-social risk assessment	
Communication	• use audience appropriate verbal and written communication • prepare a well-organised, clear report • identify terms that may create ambiguity or that would be difficult to understand without specialised knowledge • consult with others relevant to the anticipation and management of workplace hazards • communicate effectively with groups of workers and community members where emotions may be high due to actual or perceived health impacts	• describe and categorise occupational and environmental hazards. • enlist commonly used terminology to describe risk and hazard in a workplace • interpret a report from another occupational health professionals including occupational hygienists • use various media forms constructively • state clearly what is the case and what is likely to happen • create or arrange for preventive measures to be given orally and in writing to relevant people
Quality and safety	• assess the adequacy of a report prepared by an occupational hygienist, organisational psychologist or ergonomist • determine whether current hazard control mechanisms and procedures are satisfactory	• interpret the reports prepared by an occupational hygienist, organisational psychologist or ergonomist
Teaching and learning	• regularly self-evaluate personal professional practice, and implement changes based on the results • actively seek feedback from supervisors and colleagues on their own performance • maintain current knowledge of new technologies, health care priorities and changes of patients' expectations	• accept feedback constructively, and change behaviour in response • recognise the limits of personal expertise, and involve other health professionals as needed
Research	• demonstrate a systematic approach and clear understanding of research and statistical terminology • access, use and interpret a Safety Data Sheet (SDS) • access and evaluate current sources of information relevant occupational and environmental hazards	
Cultural safety	• demonstrate culturally safe relationships with professional colleagues and patients	• demonstrate awareness of cultural diversity and unconscious bias

	• demonstrate respect for diversity and difference • identify unconscious bias, including the impact of gender, religion, cultural beliefs, and socioeconomic background on decision making	• work effectively and respectfully with people from different cultural backgrounds
Ethics and professional behaviour	• promote a team culture of shared accountability for decisions and outcomes • encourage open discussion of ethical concerns • respect differences of multidisciplinary team members • consult with stakeholders, achieving a balance of alternative views • acknowledge personal conflicts of interest and unconscious bias	• respect the roles and expertise of other health professionals • work effectively as a member of a team • promote team values of honesty, discipline and commitment to continuous improvement • recognise the negative impact of workplace conflict
Judgement and decision making	• apply risk prediction rules and risk calculators to defining event risk in individual patients and groups of people • recognise situations to which knowledge of physical or psychosocial hazards can be put to good and apt use • link biological hazards with workplace or community situations and the likely exposure of patients or members of the community • assess the task demands and environment of the work of a patient • perform simple measurements but know when hygiene/ergonomic expertise should be sought • plan, prioritise and conduct a walkthrough of a workplace in line with a manual handling code of practice or standards for lighting • evaluate workplace and environmental hazards by conducting preliminary quantitative or semi-quantitative measurements and risk assessments • assess the adequacy of a report prepared by an occupational hygienist, ergonomist, toxicologist, or environmental professional	• interpret appropriate data and evidence for decision making
Leadership, management, and teamwork	• discuss the features of a broad range of occupations, identifying likely workplace hazards • seek guidance from colleagues and educational supervisor on the scope and depth of inspections	• assess the range of personal and other team members' skills, expertise, and roles • participate effectively and appropriately in multidisciplinary teams

	• develop and lead effective multidisciplinary teams by developing and implementing strategies to motivate others • involve other occupational health professionals • work with organisational leaders to achieve necessary health-relevant change	• seek out and respect the perspectives of multidisciplinary team members when making decisions
Health policy, systems, and advocacy	• consult with stakeholders on the development and implementation of programs that support good work through improved worker health protection and promotion • describe relevant laws, standards, codes, and guides that relate to workplace exposures, including psycho-social hazards. • advocate for the resources and support for healthcare teams and workplaces to achieve organisational priorities • influence the development of organisational policies and procedures to optimise health outcomes • identify the determinants of health of the population, and mitigate barriers to access to care • remove self-interest from solutions to health advocacy issues • recognise poor management practices that allow workers to be ill-trained, alienated, bullied, harassed or likely to put fellow workers at risk. • identify stakeholders who hold the greatest influence on changes to occupational health and safety practice in the workplace.	• promote the development and use of organisational policies and procedures

EPA 10: Fitness for work assessment

Theme	Fitness for work assessment	OEM-EPA-12
Title	Assess patients ability to return to work	
Description	This activity requires the ability to:	

Description:

This activity requires the ability to:

- review job task analysis and job descriptions and employer specific policies and procedures
- assess the task demands, psychosocial hazards and environment of the work of an employee
- define and negotiate the standards of fitness required
- perform a clinical assessment of a person's fitness for work that includes an evaluation of psychosocial factors that increase the risk of poor return to work outcomes
- elicit a careful, well-targeted occupational and educational history
- interpret, synthesise and critically review reports provided by other health professionals in determining fitness for work including functional capacity evaluations and neuropsychological reports
- describe the consequences of injury and/or illness , in particular, its effect on patients ability to work
- prepare and implement a return to work or rehabilitation plan for the patient.

Behaviours

Professional practice framework domain	Ready to perform without supervision Expected behaviours of a trainee who can routinely perform this activity without needing supervision The trainee will:	Requires some supervision Possible behaviours of a trainee who needs some supervision to perform this activity The trainee may:
Medical expertise	- demonstrate a holistic approach to hazard identification within the workplace - interpretate job task analysis - interpret functional capacity assessments and neuropsychological reports appropriately - determine the biomechanical components of manual work and understand the interplay of psychosocial hazards in the development and management of musculoskeletal conditions and impacts on fitness to work - determine the psychological components of a role and how it may impact on fitness to work - identify potential psychosocial factors present in the individual that may lead to poor return to work outcomes - conduct a focused walkthrough of a workplace directed at the placement of a worker - identify the likely requirements for strength, stamina, alertness, responsiveness, judgment and	- demonstrate understanding of occupational hazards and risks within the workplace - demonstrate some interpretation of job task analysis - understand the components and need to specialised testing like functional capacity and neuropsychological assessments - define common terms used to describe body actions and the ways of moving articles at work

	consistent performance for common occupational roles
	• discuss with a patient the implications for employment of medication and convalescence from procedures
	• describe the likely effect of levels of substance use on impairment.
	• estimate the level of a person's impairment, the nature of a person's disability and which roles in life a person can perform
	• describe the consequences of therapeutic drug use on a worker's performance
	• describe the consequences of surgical procedures on a worker's performance and the likely period of recovery for procedures affecting a worker's mobility or stamina.
	• evaluate the likely effect of described work conditions on health, given a worker's individual circumstances
Communication	• discuss the schedule of items for the level of fitness required for the work involved
	• discuss ways to maintain employment for workers no longer able to meet the demands of their job, e.g., through illness that is not work-related.
	• question workers and employer representatives in ways that serve to cross-check subjective remarks
	• manage a situation where a worker is found not to be fit according to the examination standard (includes management of anger)
	• write workers' compensation reports that refer to fitness for work or impairment assessment
	• elicit relevant information about the requirements of a job and its ambience from a telephone conversation with an employer representative
Quality and safety	• identify special rules on fitness for driving (personal, heavy vehicle, rail, crane, forklift), fitness for air crew and for diving
Teaching and learning	• imagine or visualise a worker's daily activities based on a careful occupational history and persist sufficiently in questioning to obtain this
Research	• discuss the application of the various guides to assessing impairment in Australia and New Zealand
	• recognise WHO international classification of functioning, disability and health

Cultural safety	
Ethics and professional behaviour	• recognise equal opportunity and/or disability discrimination law • recognise local laws and guidelines on incapacity payments and return to work
Judgement and decision making	• assess the organisational demands on the worker and how they affect day to day work • discern and refuse to accept standards or schedules of fitness testing that are not congruent with work requirements • define appropriate restrictions for persons within the workplace if needed • define appropriate placements for people with disabilities • differentiate between impairment, functional capacity and social participation and recognise that severe impairment is not necessarily mirrored by a major change to social participation and vice versa. • explain and negotiate a return-to-work plan, where a worker has limited capacity for work
Leadership, management, and teamwork	• liaise in a timely and appropriate manner with other health care professionals involved in a worker's care
Health policy, systems, and advocacy	• demonstrate extensive in-depth knowledge of the standards of fitness laid down by relevant legislation or industry standards • demonstrate in-depth knowledge of fitness to work guidelines

Knowledge guides

Knowledge guides provide detailed guidance to trainees on the important topics and concepts trainees need to understand to become experts in their chosen specialty.

Trainees are not expected to be experts in all areas or have experience related to all items in these guides.

#	Title
1	**Key clinical systems of occupational and environmental medicine**
2	**Health promotion and illness prevention**
3	**Hazard recognition, evaluation, and control of risk**
4	**Policy development and workplace relations**
5	**Business continuity, disaster preparedness and emergency management**
6	**Environmental issues in occupational and environmental medicine**
7	**Occupational health and safety, and legislation**
8	**Epidemiology and causation**

KEY PRESENTATIONS AND CONDITIONS

Trainees will have a comprehensive depth of knowledge of these occupationally and environmentally related medical presentations and conditions.

Respiratory
- Hypersensitivity pneumonitis
- Mineral dust disease, including:
  » asbestosis
  » pneumoconiosis, such as silicosis and coal worker's pneumoconiosis
- Occupational related lung cancers including mesothelioma
- Occupationally related asthma, both caused and aggravated by workplace exposures
- Sleep apnoea

Neurological
- Acute and chronic neurological diseases resulting from chemical exposures including solvents and heavy metals
- Delerium due to workplace exposures like heat, hypoxia, acute toxicity
- Entrapment of nerve roots, nerve plexuses and peripheral nerves.
- Epilepsy and seizure related disorders
- Heat related neurological conditions
- Narcosis from inhalation of solvent and related vapours.
- Neurocognitive deficits caused by exposure to solvents, heavy metals
- Parkinson like conditions caused by chemical exposures like manganese
- Peripheral neuropathies

Cardiovascular
- Acute emergency cardiac conditions
- Cardiovascular diseases caused by chemicals and environmental pollutants such as:
  » air pollution
  » carbon disulphide
  » carbon monoxide
  » chlorofluorocarbons
  » heavy metals
  » hydrocarbons
  » organic nitrates

For each presentation and condition, Trainees will **know how to:**

Synthesise
» recognise the clinical presentation
» identify relevant epidemiology, prevalence, pathophysiology, and clinical science
» take a comprehensive clinical history
» conduct an appropriate examination
» establish a differential diagnosis
» plan and arrange appropriate investigations
» consider the impact of illness and disease on patients and their quality of life when developing a management plan

Manage
» provide evidence-based management
» prescribe therapies tailored to patients' needs and conditions
» recognise potential complications of disease and its management, and initiate preventative strategies
» involve multidisciplinary teams

Consider other factors
»   identify individual and social factors and the impact of these on diagnosis and management

» organophosphates
- Peripheral vascular diseases caused by chemical exposures like arsenic

Musculo-skeletal
- Bursitis in multiple joints
- Carpal and cubital tunnel syndromes
- De Quervain's Tenosynovitis
- Discogenic pain / disc bulge/prolapse
- Dupuytren's disease / contracture
- Lateral and medial epicondylitis
- Lumbar spondylosis and spondylolisthesis
- Muscle sprains, strains, and tears
- Non-specific back and neck pain
- Non-specific upper limb pain
- Rotator cuff injuries
- Tendonitis and tendinopathies
- Triangular fibrocartilage complex (TFCC) injury
- Trigger finger
- Upper limb work-related disorders

Kidney
- Acute kidney injury
- Chronic kidney disease (CKD)
- Glomerulonephritis, acute and chronic, including nephritic syndromes and rapidly progressive glomerulonephritis
- Occupationally related cancers including bladder cancer
- Work-related causes of renal impairment

Gastrointestinal
- Blood borne pathogens, such as hepatitis B & C
- Infectious hepatitis
- Liver disease, acute and chronic, and as a result of chemical exposures
- Obesity (work related)
- Hepatic cancer,
- occupationally related hepatic cancer conditions

Skin
- Benign and malignant skin conditions caused by UV radiation
- Skin infections, occupationally related such as:
  » bacterial
  » fungal

- » protozoal
- » viral
- Dermatitis, occupationally related including allergic and irritant
- Ulcerative skin conditions due to chemical exposures

Psychiatric and Psychological
- Adjustment and mood disorders
- Anxiety related disorders including post-traumatic stress disorder
- Psychotic disorders
- Self-harm and suicidal behaviour
- Somatic disorders
- Substance use, overdose, or toxic effects of illicit drug use

Ear nose and throat
- Hearing loss, age related, and noise induced

Immunology and allergy
- Allergic disorders:
  - » adverse drug reactions
  - » allergic rhinitis
  - » anaphylaxis
  - » atopic dermatitis (eczema)
  - » conjunctivitis
- Occupational asthma
- Occupational dermatitis
- Sinusitis

Rheumatological
- Chronic fatigue syndrome
- Fibromyalgia/ Chronic pain

Geriatric
- Dementia syndromes
- Osteoarthritis
- Osteoporosis

Infectious diseases
- Blood borne pathogens, including:
  - » Hepatitis B
  - » HIV
- COVID 19/ influenza
- Infectious diseases linked to travel, including:
  - » dengue
  - » malaria
  - » ross river virus
- Q Fever
- Leptospirosis

Pain conditions
- Chronic pain syndromes

- Complex regional pain syndrome

EPIDEMIOLOGY, PATHOPHYSIOLOGY, AND CLINICAL SCIENCES

Trainees will have a comprehensive depth of knowledge of the principles of the foundational sciences.

- Biostatistics
- Environmentally related medical conditions
- Epidemiology
- Occupational and environmental legislation
- Occupational hygiene
- Occupationally related medical conditions
- Primary health care and general medical conditions
- Toxicology

Cardiovascular system
- Occupational contributors to cardiovascular disease, and agents that can precipitate relevant symptoms.
- The impact of cardiovascular disease on functioning within a workplace.

Respiratory and sleep system
- Effect of occupational and environmental toxins on the respiratory system.
- Obstructive sleep apnoea and impact on fitness for work and driving.
- Pathophysiological basis and causes of airway inflammation.
- Effects and impacts of
  » asbestos exposure
  » diving physiology
  » respiratory disease on capacity for work
  » shift work on circadian rhythm and functioning within a working environment
- Well-recognised causes of occupational asthma and hypersensitivity pneumonitis

Kidney and genitourinary systems
- Recognised occupational causes of cancer of the genitourinary tract
- Issues effecting capacity to work
  » chronic kidney failure and its treatment
  » continence issues
  » obstructive urinary disorders
- work-related causes of renal impairment

Common eye conditions
- Occupational impact of impaired vision including
  » blindness
  » situations where full colour vision is or isn't required
- The occupational significance of:
  » restricted visual fields or scotomata
  » squint

Common ear conditions
- Principles of noise mapping, hierarchy of controls for noise control and their links to an ear protection program.

Immune System
- Common investigations and what information they offer
- Exposures recognised to cause haemolysis, aplastic anaemia or leukaemia
- Potential impact of immunosuppression in the workplace
- Special needs of workers who have undergone organ transplantation.

Endocrine and Gastrointestinal Systems
- Strategies for managing functional bowel disorders
- Strategies for the management of obesity
- The end-organ effects of obesity and their effect on work

Pregnancy and Reproductive Systems
- Classes of substances recognised to be endocrine disrupters
- Strategies for managing the pregnant worker in a workplace
- Sensitivity to exposure during different stages of pregnancy
- Well-recognised teratogens
- Work-related causes of adverse reproductive outcomes

Mental health
- Appropriate use, purpose and limitations of neuropsychological tests
- Commonly used psychotropic medications and their side-effects
- Treatment of substance abuse

Musculoskeletal
- Functional recovery with joint disorders treated conservatively or with surgical prosthesis
- Recovery of function following:
  » bursal inflammation
  » dislocations
  » ruptures
  » sprains
  » strains
  » tendinopathies
  » spinal disc pathologies
  » fractures
- Recovery of function with use of prosthesis after amputation of part of a limb

INVESTIGATIONS, PROCEDURES, AND CLINICAL ASSESSMENT TOOLS

Trainees will know the scientific foundation of each investigation and procedure, including relevant anatomy and physiology. They will be able to interpret the reported results of each investigation or procedure.

Trainees will know how to explain the investigation or procedure to patients, families, and carers, and be able to explain procedural risk and obtain informed consent where applicable

Acute Care
- Defibrillation
- Fluid resuscitation
- Inotropic support
- Management of acute workplace injuries such as eye injuries, fractures
- Oxygen delivery and assisted ventilation

Screening tools
- Cardiovascular risk scores
- Mental health related screening tools, such as:
  » K10
  » DASS
  » Beck inventory
  » mini-mental cognitive (MMC)
- Sleep apnoea scores/screening
- Imaging tools including the appropriate use, purpose, and limitations of commonly applied imaging. Relevant tools include:
  » CT scan
  » MRI scans
  » Nuclear Medicine Scans
  » Ultrasound
  » X-ray including ILO grading

Visual screening
- Colour vison testing
- Depth perception
- Office tests for eye functioning/injury
- Task specific testing like lantern tests
- Visual acuity and visual field testing

Audiology testing
- Pure tone testing
- Rinne Speech discrimination
- Tuning fork tests
- Weber

Respiratory testing
- Complex lung function interpretation
- Office based spirometry testing
- Peak flow monitoring
- Tests for sleep apnoea

Cardiovascular testing
- ECG
- Stress tests

Neurological testing:
- Neuropsychiatric evaluations

Biological monitoring
- Biological exposure monitoring
- Biological exposure indices

IMPORTANT SPECIFIC ISSUES

Trainees will identify important specialty-specific issues and the impact of these on diagnosis and management and integrate these into care.

- Knowledge and use of information from global and local organisations influencing occupational and environmental health including:

Population specific issues

- Cultural safety related issues within the workplace
- Normal physiological changes associated with ageing
- National guidelines that determine fitness for roles
- National driving standards guide to assessing fitness to drive and related train driving standards
- National standard for Health Assessment of rail safety workers.
- National Health promotion guidelines including:
  - » National screening programs for neoplastic diseases
- National guidelines on vaccination programs
- Awareness of conditions perceived as having an impact on work but for which there is limited evidence-based information.
  - » Building-related illnesses such as Sick Building Syndrome
  - » Multiple Chemical Sensitivity Myalgic Encephalomyelitis (ME)/chronic fatigue syndrome (CFS
  - » Chronic pain syndromes
  - » War-related illnesses
  - » Malingering
- Mental health concerns such as those due to accidents, threats, fire, and warfare, and their implication for work, such as post-traumatic stress disorder (PTSD)
- Depression and its implications for work
- Work-related preventive measures for bullying and harassment
- Major psychiatric illness and its implications for work
- Ways to overcome stigma experienced at work by people with psychiatric illness
- Personality disorder and its effect on co-workers, vehicle driving and company reputation
- Mental health conditions and standards for safety critical work
- Community resources that may assist recovery of function, such as anger management.
- Implications of substance abuse for work.

Infectious diseases

- Food-borne and water-borne infections of local relevance
- Implications of infection and working with others

Drugs and alcohol

- Effects of recreational and prescribed drugs on workers undertaking safety-critical tasks.
- Medicinal marijuana
- Role of Medical Review Officers and the Australian Medical Review Officers Association (AMROA)

Extreme environments

- Advice on managing health risks associated with:
  - » Diving and working in caissons
  - » Freezing climates
  - » High altitude
  - » Very hot climates including deep underground

EPIDEMIOLOGY, PATHOPHYSIOLOGY, AND CLINICAL SCIENCES

Trainees will have in-depth knowledge of the topics listed under each clinical sciences heading.

For the statistical and epidemiological concepts listed, trainees should be able to describe the underlying rationale, the indications for using one test or method over another, and the calculations required to generate descriptive statistics.

- Key public health problems and health needs of priority population groups
- The major burden of disease and injury, and the major risk factors causing this burden, in Australia and New Zealand
- National Health Priority Areas (NHPAs), and risk factors, in Australia:
    » Arthritis and other musculoskeletal conditions
    » Asthma
    » Cancer
    » Cardiovascular disease
    » Diabetes
    » Injury
    » Mental health
- NHPAs, and risk factors, in Aotearoa New Zealand:
    » Alcohol and illicit and other drug use
    » Cancer
    » Cardiovascular disease
    » Child health and immunisation
    » Diabetes
    » Mental health
    » Nutrition
    » Obesity
    » Oral health
    » Physical activity
    » Smoking
    » Suicide
    » Violence
    - Principles of:
    » illness prevention (1°, 2°, 3° prevention) and screening
    » epidemic control
    » outbreak investigation
    » infection control
    » importance, use, benefits, costs and side-effects of screening
    » use of patient registers and disease recall systems
    - Notifiable diseases and their reporting process
    - Guidelines on vaccination
- Population characteristics that lead to inequality in health status
- Biomedical, environmental, genetic, and socio-economic risk factors and risky health behaviours and know where preventive effort can be best applied

INVESTIGATIONS, PROCEDURES, AND CLINICAL ASSESSMENT TOOLS

Trainees will know the scientific foundation of each investigation and procedure, including relevant anatomy and physiology. They will be able to interpret the reported results of each investigation or procedure.

Trainees will know how to explain the investigation or procedure to patients, families, and carers, and be able to explain procedural risk and obtain informed consent where applicable.

- Interpret indicators for measuring health status, such as:
  » aggregate health indicators
  » adverse health events
  » causes of decreased quality of life
  » hospitalisation rates
  » injury rates
  » measures of positive dimensions of health
  » mortality

IMPORTANT SPECIFIC ISSUES

Trainees will identify important specialty-specific issues and the impact of these on diagnosis, management and outcomes.

- Population health status data identifying health issues, including:
  » factors related to good health
  » leading causes of death
  » leading causes of hospitalisation
  » commonly reported chronic conditions
  » common notifiable diseases.
- Changing trends in occupational disease and injury in the broader community
- Health conditions affecting safety at work and related to employment
- Evidence-based occupational disease and injury trends in daily practice
- Disease patterns to inform and contextualise clinical practice.
- Workplace health surveillance programs including those described in legislation
- Effects of work and social gradient on a person's health
- Demographics and participation rates in prevention or screening programs
- Immunisation and epidemic control
- Economics of prevention and health promotion, including the influence of compensation mechanisms
- Organisational plans for healthy eating, weight reduction, physical activity, smoking cessation and drug and alcohol abuse prevention
- Measures of cost effectiveness and anticipated positive health outcomes
- Protocol and processes of interaction between the patient and available health system resources
- Economic implications of policies and procedures that support safe practice
- Health inequities in relation to priority population groups:
  » indigenous people
  » diverse groups
  » rural/remote areas
  » socio-economically disadvantaged
  » disability

» prisoners
» veterans

KEY PRESENTATIONS AND CONDITIONS

Trainees will have a comprehensive depth of knowledge of these presentations and conditions.

- Classification of workplace hazards
  » biological
  » physical
  » chemical
  » psychological
- Adverse health effects of the hazards
- Differences between hazard, exposure, biological effects, and disease or injury
- Models for causation that are medicolegally authoritative
- Mitigation strategies using the hierarchy of controls
- Human factors principles, including but not limited to those that underpin the hierarchy of controls

Physical hazards
- Atmospheric pressure changes
- sound/noise
- heat
- cold
- electricity
- vibration
- high pressure injuries
- ergonomic
- radiation
  » Ionising
  » Non-ionising
  » Radioactive particles
  » Ultraviolet

LESS COMMON OR MORE COMPLEX PRESENTATIONS AND CONDITIONS

Trainees will understand these presentations and conditions.

Trainees will understand the resources that should be used to help manage patients with these presentations and conditions.

Physical hazards
- Changes in ambient pressure,
- Cold
- Electricity
- Radiation
  » Non-ionising
  » Ionising
  » other clinically relevant electromagnetic phenomena
- Heat
- Sound, oud noise, such as: whirring, whining, whooshing and/or banging
- Sources of drowning or engulfment
- Sources of physical trauma
- Vibration
- Slips, trips or falls
- Manual handling
- Ergonomic hazards

For each presentation and condition, Trainees will **know how to:**

Synthesise
» recognise the clinical presentation
» identify relevant epidemiology, prevalence, pathophysiology, and clinical science
» take a comprehensive clinical history
» conduct an appropriate examination
» establish a differential diagnosis
» plan and arrange appropriate investigations
» consider the impact of illness and disease on patients and their quality of life when developing a management plan

Manage
» provide evidence-based management
» prescribe therapies tailored to patients' needs and conditions
» recognise potential complications of disease and its management, and initiate preventative strategies
» Involve, lead and guide multidisciplinary teams to adopt risk-based outcomes driven approaches to ensure health and vocational outcomes, where and as appropriate

Consider other factors
» identify individual and social factors and the impact of these on diagnosis and management

Chemical Hazards from workplace substances

- categorised by physical state:
  - » solids
  - » liquids
  - » gases
  - » fumes
  - » dusts
- categorised by effects:
  - » corrosive
  - » explosive
  - » irritant
  - » sensitising
  - » oxidising
  - » asphyxiant
  - » flammable
  - » carcinogenic
  - » toxic
- Carcinogenic and Teratogenic substances presently used in bulk in Aotearoa New Zealand and Australia
- Mineral dusts
- Volatile liquids with vapours capable of causing narcosis and other health effects

Biological hazards

- Bacteria
- Fungi
- Protozoa
- Toxins
- Venom
- Viruses

Psychosocial hazards

- Bullying
- External pacing
- Harassment including sexual harassment
- High and low job demands
- Low job control
- Low reward and recognition
- Low role clarity
- Mentally and/or physically traumatic events and moral injury
- Not part of decision making
- Poor organisational change management
- Poor organisational justice
- Poor physical and/or organisational environmental conditions
- Poor support
- Poor workplace relationships including interpersonal conflict
- Remote or isolated work
- Violence and aggression

EPIDEMIOLOGY, PATHOPHYSIOLOGY, AND CLINICAL SCIENCES

Trainees will have a comprehensive depth of knowledge of the principles of the foundational sciences.

- Routes of exposure, the mechanism of injury and the pathological effects thereof
- Health surveillance programs with attention to both biological exposure and effect monitoring. Understanding of the physical, chemical and toxicological properties of substances
  » gas
  » Halogen and a halogenated organic material
  » Metal and a heavy metal
  » Acid, alkali, pKa and pH
  » Enzyme and its properties
  » Inert gas
  » Ion and a polar molecule
  » Aromatic and aliphatic compounds
  » Basic physical laws that relate to gases, pressure, temperature and Chemical reactions
  » Compound
  » Diffusion and osmosis
  » Effects of particle size, including nanoparticles, such as inhalable and respirable
  » Electrolysis and electrolytes
  » Flammability and explosion
  » Odour threshold
  » Oxidation and reduction
  » Solubility
  » Volatile organic compound.

- Distinguishing features of:
  » prions
  » viruses
  » bacteria
  » fungi
  » protozoa

- Different types and sources of venom

INVESTIGATIONS, PROCEDURES, AND CLINICAL ASSESSMENT TOOLS

Trainees will know the scientific foundation of each investigation and procedure, including relevant anatomy and physiology. They will be able to interpret the reported results of each investigation or procedure.

Trainees will know how to explain the investigation or procedure to patients, families, and carers, and be able to explain procedural risk and obtain informed consent where applicable

- Occupational hygiene sampling
- Relating occupational hygiene measurements including health effects and health risks for the identified hazards
- Risk assessment and site visit processes

IMPORTANT SPECIFIC ISSUES

Trainees will identify important specialty-specific issues and the impact of these on diagnosis and management and integrate these into care

- The principles and practical application of occupational hygiene
- The hierarchy of controls
- Toxicology of chemical substances including pharmacodynamics, pharmacokinetics, and half-lives
- Critical, scientific technical analysis of quantitative and qualitative methodologies used in occupational hygiene studies
- Reference framework to address foreseeable health and organisational risks relating to substances
- Available literature such as material safety data sheets and appropriate data bases relevant to agent and exposure.

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- SWOT (or related) analysis of an occupational health service
- Systematic approach to the assessing and evaluation of workplace health programs
- Sources of information about past significant events, including written and electronic records and interpersonal information within the organisation

IMPORTANT SPECIFIC ISSUES

Trainees will identify important specialty-specific issues and the impact of these on diagnosis, management and outcomes.

- The importance of interaction with people in management roles as an occupational health and safety professional
- Awareness of trends toward casual work, part-time work, employment of immigrants, employment through agency hire and contracting companies, outworkers, working from home and flexible working hours, and how they may affect occupational health and safety and issues such as consultation with workers, reporting of hazards, and reporting of injury
- The workplace health and safety culture at an organisation
- Relevant laws, codes of practice and industry standards
- Organisational needs based on its type and its culture
- Commonly used or already-established occupational health and safety services that can be used for reference
- Potential need for a staged introduction of services offered
- Discern what is essential from what may be 'nice to have'
- Refusal to undertake inappropriate activity
- Set up, maintain the independence of, and evaluate the performance of, an occupational health service sufficiently equipped at a suitable location
- Types and likelihood of risks
- Define the purpose, spectrum, strengths, and limitations of:
  » disability support organisations
  » environmental activist groups
  » financial management
  » human resource management
  » legislative compliance
  » local government
  » local single-issue community action groups
  » management of change
  » marketing
  » policy and procedure development

» production
» program management
» state or federal government departments and their staff
» strategic planning
» union representatives who visit or are employed in workplaces
- Factors influencing workplace culture
- Types of organisational structure
- Components of a business plan and organisational objectives
- Broad economic factors that influence business and factors influencing allocation of resources within a business
- Different quality assurance processes and their strengths and weaknesses
- Issues at stake in a disagreement and respond to the associated emotional concomitants
  Budgets

EPIDEMIOLOGY, PATHOPHYSIOLOGY, AND CLINICAL SCIENCES

Trainees will have in-depth knowledge of the topics listed under each clinical sciences heading.

For the statistical and epidemiological concepts listed, trainees should be able to describe the underlying rationale, the indications for using one test or method over another, and the calculations required to generate descriptive statistics.

Outbreak of an acute disorder
- The natural history, clinical features, clinical foreseeability of harm and foreseeable severity of harm from clustered medical conditions
- The likely availability and reasonable practicability of preventive measures

Environmental incident
- The nature of the hazard, duration of its fugitive presence, and extent of spread
- The nature, severity and clinical foreseeability of health complaints, health outcomes, and who these are likely to affect or do affect

INVESTIGATIONS, PROCEDURES, AND CLINICAL ASSESSMENT TOOLS

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Outbreak investigation
- Methodology of outbreak investigation and report writing

Environmental Incident
- Method and periodicity of air and water monitoring and the interpretation of monitoring results
- Environmental audit

Remediation of a contaminated site
- Measures of satisfactory decontamination

IMPORTANT SPECIFIC ISSUES

Trainees will identify important specialty-specific issues and the impact of these on diagnosis, management and outcomes.

Outbreak of an acute disorder

- How to recognise and support an organisation's staff health strategy with respect to a cluster, outbreak, the endemic nature of a condition, an epidemic, and a pandemic
- Methodologies for formulating a reasonable plan and strategy with awareness of your personal role(s), including the potential for relevant perceptions of bias and/or conflicts of interest
- Organisations that should be notified and individuals that should be involved
- The role of emergency services
- The method, and likely time required, to confirm cases and coordinate timely, effective, sustainable health protection responses
- The foreseeable reaction of those involved and those nearby
- How to keep those affected and relevant community appropriately informed
- Medical and medicolegal determinants of need for isolation or separation of cases
- The appropriate involvement of families and others who are close to those affected

Site health emergency response capability

- An understanding of the site health and safety risks and external response capabilities
- Site emergency health response capabilities required to respond to onsite acute illnesses and injuries

Environmental incident

- Actions related to a history of environmental incidents and how they have arisen
- Likely ameliorative efforts already undertaken in an environmental incident
- Critical evaluation of relevant technical reports
- scientific methodologies that have regulatory or authoritative recognition
- Assessment of technical reports against foreseeable health risks and relevant outcomes, including reports:
  » occupational hygiene
  » toxicology
  » safety systems
  » human factors
- Management of stakeholders in an environmental health issue who may have differing perceptions and agendas
- Risk communication

Remediation of a contaminated site

- The remediation process from beginning to end
- Site history
- Toxicological nature of contamination
- Critical analysis of health monitoring information and systems
- Interfaces between operations and health protection regulations
- Environment and planning laws and who is responsible for administering them
- Approaches to this type of problem and their usual effect
- Strategies for the transport and disposal of soil
- Consequences of adverse weather or problems of access
- Sensitive areas in proximity
- Likely appearance of the site once work is completed

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Core concepts in environmental health
- Toxicity
- Exposure
- Dose/Response,
- Individual Susceptibility
- Risks and Benefits
- Environmental Justice
- Community Resources and Action

Workplace environment
- Underwater - diving
- Freezing climates
- High altitude
- Radioactive substances
- Very hot climates

Broader environmental concerns
- Air pollution and indoor air quality
- Land/soil pollution
- Noise pollution
- Water pollution

INVESTIGATIONS, PROCEDURES, AND CLINICAL ASSESSMENT TOOLS

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Reference regulations and regulatory bodies
- National Standards for Drinking Water
- National environmental protection air quality measure (NEPM) and relevant National / State regulations
- Regulatory bodies that oversee air quality, water quality, sanitation systems, chemical approval and use, environmental pollutants from industry (such as, mining and pastoral), radiation both ionizing and non-ionizing, and current additions such as the PFAS taskforce.

Environmental risk assessments
- Qualitative and or quantitative risk assessments to evaluate potential exposure levels (such as look up tables and reference to environmental exposure standards e.g. air, water) to assess potential human health risks from environmental hazards
- Environmental risk assessment limitations
- Exposure guidelines and monitoring
- Interpret relevant technical reports to elicit information on hazardous exposure monitoring
- Interpret air and water monitoring results
- Demonstrate an understanding of how.

IMPORTANT SPECIFIC ISSUES

Trainees will identify important specialty-specific issues and the impact of these on diagnosis, management and outcomes.

Social and Environmental justice

- Chemicals widely used in the environment that could affect health within their country of practice.
- current predictions on changes to weather systems with their region. These predictions should be able to be used to modify adverse health effects, both within the wider occupational community, and the wider population
- The history and philosophical concepts of the environmental justice movement
- The concepts of distributive and procedural justice
- The current environmental issues affecting the health of Aboriginal, Torres Strait Islander peoples, and tangata whenua.
- The understanding of te ao Māori, the place te taiao (environment that surrounds us) in terms of whakapapa. Whenua (land), maunga (mountain), awa (river) and so on are not property or commodities, but ancestors with whom we are intimately connected, and resources of cultural and spiritual significance. Maintaining environmental relationships in healthy balance is a fundamental for wai ora healthy environments) including:
  - » quality of housing and maintenance
  - » regular power supply
  - » location of rural and remote communities
  - » drinking water quality
  - » access to sanitation facilities and hygiene hardware
  - » sewage and waste management
  - » dust and weed management
  - » animal and pest management
  - » indoor air quality related to cooking methods.
  - » energy poverty related to cooling and heating.
- Industrial activities impacting environmental justice in communities.
- The impacts Aboriginal, Torres Strait and Māori people face living remotely, as defined by these communities.
- Health needs in camps for refugees or internally displaced people

Environmental issues related to work practice

- The susceptibility of population sub-groups due to age, pregnancy, infirmity, or social circumstances
- Government decision making approaches to heath and the environment
- Community response management for environmental exposures or health clusters
- Special interest groups and their involvement with environmental issues groups
- Key environmental regulations
- Difference between occupational and environmental standards and the different contexts in which they are applied
- Strengths and limitations of environmental standards
- Laws and standards of the transport and storage of hazardous substances, including radioactive substances
- Scale, disposal systems, and environmental and/or health effects of
  - » key waste streams
  - » recycling waste streams
  - » Per- and poly-fluoroalkyl substances (PFASs), including specifically Perfluorooctane sulfonate (PFOS)

- » recycling wastewater
- » exhausts for diesel and petrol
- » burning of coal, gas, wood, and other sources of carbon
- The impact of climate change on health and the environment and initiatives to reduce carbon emissions such as city greening
- The importance of advocating for health benefits within a business environment
- Programs that predict and mitigate health effects in occupational groups working in:
  - » bushfire smoke affected
  - » post flood areas
  - » wider population

Health affecting environmental issues
- Common types of health-affecting environmental issues
- Population health monitoring, including the use of:
  - » Biomarkers
  - » assessment of sub-clinical effects
  - » clusters of health events.
- WHO summaries on Environmental Health covering main environmental issues contributing to the global burden of diseases.
- Modifiable environmental issues contributing to the burden of disease within Australia and/or Aotearoa New Zealand.
- The health inputs in developing business measurement tools such as Environmental Social Governance (ESG).

LEGAL, ORGANISATIONAL AND REGULATORY ISSUES

Trainees will have in-depth knowledge of the topics listed under each legal, organisation and regulatory issue heading.

For the legal concepts listed, Trainees should be able to describe and identify the broad legal concepts as they apply to Occupational and Environmental Medicine and the knowledge required to apply the information correctly

Laws related to workplace and environmental hazards
- Types and tiers of law
- Non-legislated guides and standards
- Legal administering authorities
- Relevant standards, codes and guides including sections of a statute that are:
  » pivotal
  » seldom applied

Industrial agreements
- Local industrial relations mechanisms

Courts
- Effective contributions to the legal process
- Purpose of courts
- Rules including the Constraints on expert evidence
- Medical:
  » panels
  » referees
  » reports

Medical reports
- Broad content of workplace and environmental compensation laws
- Equipment required for medical report preparation
- Legal and insurance requirements
- Legal purpose of medical reports
- Published guidelines for report preparation

IMPORTANT SPECIFIC ISSUES

Trainees will identify important specialty-specific issues and the impact of these on diagnosis, management and outcomes.

Industrial
- Vigour of activism by local employee representatives and advocates
- Local industrial relations mechanisms and their documented effects on health and safety
- Nature of employer responses
- Physiological basis of an industrial agreement, such as, on fatigue or shift work, from overlays generated by industrial negotiation.

Medical Reporting
- Patient understanding of ethical and legal impacts of medical reporting
- General purposes for which compensation is provided by both statute and common law, such as:
  » incapacity payments which may be time-limited
  » payment of medical expenses
  » lump sums for impairment

Common Law
- Influence of common law on Occupational and Environmental Medicine

EPIDEMIOLOGY, PATHOPHYSIOLOGY, AND CLINICAL SCIENCES

Trainees will have in-depth knowledge of the topics listed under each clinical sciences heading.

For the statistical and epidemiological concepts listed, trainees should be able to describe the underlying rationale, the indications for using one test or method over another, and the calculations required to generate descriptive statistics.

- Study design, sampling, and methodology
- The difference between the expression of health-related phenomena as frequencies or rates
- Interpretation of a rate and the information that it conveys
- Prevalence, incidence, and incidence density and their meaning
- Commonly used measures of association in epidemiology
- Incidence as a measure of absolute risk
- The potential effect of chance (random variation) on measurements, observations, and the results of an investigation
- The meaning of a confidence interval and a p-value
- Common types and causes of selection and measurement bias and the way they might distort study results
- Identify and assess the presence and influence of potential confounders and how they may affect the interpretation of association between a putative determinant and a health outcome
- The variety of methods available to deal with confounding
- The distinction between confounding and interaction (or effect modification).
- Injury and disease causation models such as the Bradford Hill criteria for causation
- The assessment and management of a putative disease cluster

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Trainees will know how to explain the investigation or procedure to patients, families, and carers, and be able to explain procedural risk and obtain informed consent where applicable.

- Tabulations summarising the distribution of a single variable or the relationship between two or more variables
- Appropriate illustrations summarising graphically the distribution of a single variable or the relationship between two or more variables
- The calculation and interpretation of appropriate statistics.
- Indicators for measuring health status
- Appropriate tables and graphs

IMPORTANT SPECIFIC ISSUES

Trainees will identify important specialty-specific issues and the impact of

- Study designs, including the advantages and disadvantages of them
- Scientific report writing skills
- Suitable presentation skills
- Scientific journal articles

these on diagnosis,
management and outcomes.