Occupational Histories in Primary Care

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by
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My training, experience, & potential conflicts

• MD (1978) + rotating internship (1979)– worked in 1ry care, occupational health & public health in Canada and Central America

• Diploma in Occupational Health, MSc in Design, Measurement and Evaluation in Health Services, FRCP(C) in Occupational Medicine (1990) & Public Health & Preventive Medicine (1992)

• Research with Institute for Work & Health with funding from granting councils, foundations, Workplace Safety & Insurance Board (WSIB) and workplace parties (joint management-labour health & safety committees)

• Salary from university, recent contracts with Liverpool School of Tropical Medicine, Toronto Public Health, Health Canada in the past

• Clinical work with Community Health Centres (MoHLTC funded) and Occupational Health Clinics for Ontario Workers (OHCOW, MofLabour funded)
Suggested Agenda

• Occupational histories
  • Your experience, areas for enhancement
  • Layered approaches, based on stage in course of exposure-illness/injury

• Clinical contexts
  • Reducing work exposures early, preventing harm & maintaining work
  • Harm with lost time having occurred, promoting accommodation in return to work
  • Delving into historical - legacy exposures, substantiating work relatedness

• Open discussion
Learning Objectives

With the *goal* of enhancing your occupational histories’ validity, effectiveness, and/or efficiency.

Specifically

1. To analyse areas for enhancement and greater comfort in your occupational history taking

2. To distinguish different stages in the course of a clinical condition, with history taking appropriate to that stage

3. To access tools, references and people to assist you in implementing occupational histories
Occupational histories – your experience

• What is your experience doing occupational histories?
• For which kinds of patients?
• What are key challenges for you in doing them?
• Are there areas you feel more uncertain about your skills? (areas for enhancement)
Occupational history 1ry care tools

• Ontario College of Family Physicians Exposure assessment tool (CH²OPD²):
  • Community, Home, Hobby
  • **Occupational**
  • Personal, Diet, Drugs


• One page primary care questionnaire 12 questions including:
  • (1) employment status, (2) current and usual occupation,
  • (3) past occupations, (4) use of personal protective gear, and
  • (5) past and present occupational exposures and symptoms relating to dermal, respiratory, and ergonomic issues.

Taking an Occupational History*

WHACCS

• What do you do?
• How do you do it?
• Are you concerned about any exposures on or off the job?
• Co-workers or others with similar symptoms?
• Satisfied with your job?


*Slide thanks to Aaron Thompson
College of Family Physicians of Canada

Occupational histories - 4 levels of intensity

• Basic—knowledge of the patient’s current occupation and industry...

• Screening—individual surveillance for particular exposures

• Diagnostic—investigate an association with a present illness...

• Comprehensive—investigate complex problems in depth, usually in consultation with other occupational health professionals”

Occupational Medicine Clinical Snippet August 2016 : Taking an Occupational History
Occupational History - Key components

• Job history, with specific job titles, including concurrent
• Tasks which make up the job
• Exposure inventory for each job including:
  • Biomechanical e.g. lifting ‘x’ weight
  • Biological e.g. viral infections
  • Chemical e.g. solvents
  • Physical e.g. noise
  • Psychosocial e.g. deadlines
• Exposure controls for each hazard including assists, ventilation, personal protective equipment, etc.

Stage in course of exposure-illness/injury

• **Reducing work exposures early** - to protect patient-offspring and potentially co-workers e.g. pregnancy, asthma, yet maintain work

• **Return to work** – to promote work ability and accommodation, primarily for the patient (but potentially for co-workers) e.g. low back pain, neck-shoulder pain

• **Legacy exposures** – to document work-relatedness for compensation purposes, for patient, family, and system change e.g. cancer
Reducing work exposures early

• Aim is to protect patient +/- offspring +/- co-workers
• Who among you is engaged in pre-natal and post-natal care?
• ...has counselled a patient +/- her partner around work exposures which can impact reproduction?
• If so at what stage
  • Pre-conception, infertility? Chemical exposures
  • Pregnancy, which trimester? Chemical early, infectious throughout, biomechanical and psychosocial later?
  • Breast feeding period? Chemical throughout...
33 y.o. nurse, G2, P1 (3 yrs), 8 weeks pregnant*

- Pediatric medical ward, recently working more with chemotherapy patients
- 12 hour rotating shifts, 3-4x/week
- Husband radiology technician same hospital
- Recent outbreak of 5th disease on her ward
- Serology shows immunity to rubella but not to human parvovirus B19 infection
- What further would you ask on occupational history?

Figure 10.1. Clinical risk assessment and management often requires a multidisciplinary approach.
Occupational Hx & Asthma*

• What is the riskiest part of your job? (Goldstein 2007)
• Any exposures to vapours, gases, fumes, dusts, moulds, particles...? Any new processes? Any material safety data sheets required through Workplace Hazardous Materials Information System (http://whmis.org/)
• What are you doing to avoid the risk? E.g. Respiratory protection available & used?
• Do you think your [breathing] problems are related to your work? Are they better or worse when away from work? (Newman 1995 – see next slide)

* Thanks to Christine Oliver – colleague who also contracts with OHCOW
Newman’s initial clinical approach

1. The Quick Survey

Chief Symptom and History of Present Illness
- “What kind of work do you do?”
- “Do you think your health problems are related to your work?”
- “Are your symptoms better or worse when you’re at home or at work?”

Review of Systems
- “Are you now or have you previously been exposed to dusts, fumes, chemicals, radiation, or loud noise?”

2. Detailed Questioning Based on Initial Suspicion

Self-Administered Questionnaire for All Patients (Table 1)
- Chronology of jobs
- Exposure survey

Review of Exposure, with the Questionnaire as a Guide
- More about the current job: description of a typical day
- Review of job chronology and associated exposures

Examination of the Link between Work and the Chief Symptom
- Clinical clues (Table 2)
- Exploration of the temporal link in detail
- “Do others at work have similar problems?”

Figure 1. The Initial Clinical Approach to the Recognition of Illness Caused by Occupational Exposure.

Diagnosis of Work-Related Asthma

Assess Exposures/Factors that Cause or Exacerbate Asthma
- Occupational history
  - Allergens, irritants
  - Exertion, cold, infections
  - Type of work process/setting
  - Ventilation/use of respiratory protection
  - Obtain MSDSs
  - Co-workers – symptoms
  - Magnitude/timing of exposures
- Environmental history
  - Pets, hobbies, home exposures, ambient air pollution
- Atopy/allergies

Assess Relationship of Asthma to Work
- Symptoms – onset/timing/severity related to work, other environments
- Physiology
  - PEFRs, spirometry, methacholine responsiveness, SIC – changes related to work
  - Immunologic tests (IgE antibodies, skin prick)

*These conditions can co-exist with asthma

Chest 2008;134(3):1S-41S
Comments or Questions?

On role of Occupational Hx in reducing work exposures early, staying at work
Return to Work

• Aim is to promote patient work ability as part of rehabilitation and workplace accommodation

• Good guidelines available:
  • CMA “…to facilitate the patient's safe and timely return to the most productive employment possible.”
  • ACOEM
    http://www.acoem.org/PreventingNeedlessWorkDisability.aspx

• Who among you has filled out a “Functional Abilities Form (FAF) for planning early and safe return to work”? (http://www.wsib.on.ca/cs/groups/public/documents/staticfile/c2li/mdey/~edisp/wsib012233.pdf)
### Abilities and/or Restrictions

#### 1. Please indicate Abilities that apply. Include additional details in section 3

- **Walking**:
  - Full abilities
  - Up to 100 metres
  - 100 - 200 metres
  - Other (please specify)

- **Standing**:
  - Full abilities
  - Up to 15 minutes
  - 15 - 30 minutes
  - 30 minutes - 1 hour
  - Other (please specify)

- **Sitting**:
  - Full abilities
  - Up to 30 minutes
  - 30 minutes - 1 hour
  - Other (please specify)

- **Lifting from waist to shoulder**:
  - Full abilities
  - Up to 5 kilograms
  - 5 - 10 kilograms
  - Other (please specify)

- **Stair climbing**:
  - Full abilities
  - Up to 5 steps
  - 5 - 10 steps
  - Other (please specify)

- **Ladder climbing**:
  - Full abilities
  - 1 - 3 steps
  - 4 - 6 steps
  - Other (please specify)

#### 2. Please indicate Restrictions that apply. Include additional details in section 3

- **Bending/twisting repetitive movement of (please specify)**
- **Work at or above shoulder activity**
- **Chemical exposure to**
  - Environmental exposure to: (e.g. heat, cold, noise or scents)
- **Limited pushing/pulling with**:
  - Left arm
  - Right arm
  - Other (please specify)
- **Operating motorized equipment**
  - (e.g. forklift)
- **Potential side effects from medications (please specify)**
  - Do not include names of medications.
FAF completion – your experience

• For what kinds of conditions?
• How do you usually go about it?
• How much time does it usually take?
• Are there areas in which you are uncertain?
• Does anyone contact you afterwards e.g.
  • an employer representative – HR person?
  • A WSIB employee?
MSK disorders
– evidence-based worksheets *

• Estimating the demands of work tasks according to the risk factors for a body part (back, neck-shoulder, elbow, hand-wrist)
  • Ask a patient to bring in their job description – often lists tasks
  • Particularly useful here are physical +/- psychological demands analyses (PDAs) which larger employers have conducted on jobs

• Approximating a work task analysis
  • Photos of a worker carrying out a task are helpful to see equipment used, positioning, etc. if feasible
  • Alternatively, enactment with narration of the patient doing the tasks in the office

http://www.irsst.qc.ca/media/documents/PubIRSST/OMRT-En.pdf
ESTIMATE OF PHYSICAL WORK DEMANDS
FOR WORKERS WITH NECK OR SHOULDERS PROBLEMS

2. Does the work require other FORCEFUL EXERTION OF THE ARMS (e.g., pulling, pushing, raising, lowering, turning)?

- No (go to question 3)
- Yes

Indicate on the diagrams below the minimum and maximum duration and frequency of moderate and intense exertions:

- Pulling
- Pushing
- Raising up
- Lowering
- Turning

If these exertions present particular difficulties, explain why:

- Because of the characteristics of the objects or equipment (e.g., inadequate grips, shape and size, poor state of equipment).
- Because of the cramped space and/or the awkward postures the work imposes (e.g., twisting the trunk while pulling).
Ergonomic modification*

- Consider work options modified in relation to:
  - Tasks +/- assistance of other co-workers e.g. 2 vs 1 person lift
  - Ergonomic modifications with
    - Positioning training e.g. close to a lift
    - Equipment e.g. stands for boxes to be loaded, lifts
    - Assistive devices e.g. grippers, reach tools

- Consider (distinction thanks to Aaron Thompson):
  - Restrictions – must not do as will worsen prognosis
  - Limitations – cannot do, needs to be accommodated
  - Abilities – important focus to facilitate accommodation

Follow-up visit Reassessments

• Assess extent of implementation of modified work assignment via
  • repeat, focused occupational history, including psychosocial dimensions, relationships at work

• Assess current status

• Decide wrt:
  • Restrictions – if improving, reduce
  • Limitations – if improving, can adjust accommodations
  • Abilities – if increasing, can widen scope of tasks
  • Both the latter would adjust modified work
Comments or Questions?

On role of the Occupational History in Return to Work & Accommodation
Legacy exposures

- Aim is to explore - substantiate potential work relatedness for patient or family compensation
- Who among you has had a worker with cancer which he-she thinks is because of their work?
- What kinds of workplaces?
  - Exposures?
  - How long?
  - With what protection (if any)?
Legacy exposures - Work with others

• Often beyond primary care, but some key history, referrals, diagnoses – can charge for forwarding

• Link with:
  • hygienists who do historical exposure reconstruction (toxicity, frequency, intensity, duration)
  • union/employer representatives with access to historical workplace data,
  • advocates who handle the legal stuff

• Resources include OHCOW
  • Peterborough satellite office, 349a George St. North, Suite 206, K9H 3P9  Tel: 705-749-3444, Fax: 705-745-2463.
  • Part-time (T, W, R) coordinator, Kasia Kerin
  • For General Electric and Ventra Plastics plants, full service
  • For all others, register and on wait list for Ottawa or Toronto clinics
Open discussion

• Questions?
• Comments?
• What did you learn today that you might use? Or follow up?
  • And for what?
• What were you expecting, which we didn’t touch upon? (we might be able to explore it quickly now)
• Anything else?