PEARLS from the SRPC Conference 2011*

Exercise and Knee Arthritis
Dr. John Bosomworth

1. Does running cause osteoarthritis?
    - Most studies on osteoarthritis and causation are Level 2 evidence. However, only 1/22 cohort studies have shown increased risk of osteoarthritis with exercise. Increasing levels of exercise lead to decreased incidence of MSK pain, decreased pain, and increased functional capacity
    - Stanford Runner Study demonstrated that regular running shifted morbidity towards end of life and that mortality was delayed; runners had fewer symptoms and higher level of functioning with similar OA on radiology
2. Does running/exercise worsen osteoarthritis?
    - Level One evidence that examines short term outcomes (1-2 years)
    - Exercise results in small-moderate improvement in disability/pain of osteoarthritis; the improvement is similar to that seen with NSAIDs
    - The benefit of exercise in OA is independent from the weight loss that occurs with exercise
    - No evidence of harm with exercise in patients with OA
    - Some forms of exercise have decreased tibial loading and therefore should elicit less pain (ex. rowing has the least amount of tibial loading followed by exercise bicycles, walking, and ellipticals).
    - Safest pharmacological options for OA are acetaminophen and topical NSAIDs.

Neuropathic Pain
Dr. Edward Osborne

1. If you suspect neuropathic pain, DN4 Questionnaire is a validated diagnostic tool and can also help trace patient's progress over time in the office.
2. Pharmaceutical options
    - first line: TCAs or gabapentin/pregabalin
    - TCAs are cheap and effective; start at a low dose and titrate up (10-15 mg daily)
    - Beyond 50 mg, Dr. Osborne does not find much benefit
        - It takes 2-3 weeks to see a response
        - If partial response, add SNRI
        - If no response, change to SNRI
        - If a TCA doesn't work, gabapentin/pregabalin will probably not work
    - Lyrica labeled for treatment of neuropathic pain secondary to shingles and diabetic neuropathy but works for most neuropathies.
    - Second Line: SNRI, topical lidocaine
    - If skin too sensitive to lidocaine, can spray area with Flovent before application or rub with hydrocortisone after.

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* *Please note that these summaries are resident interpretations of the below presentations and speakers. Speakers themselves were not involved in creating following summaries. Information from the summaries should be correlated with references cannot be used independently of clinical judgement.

- 4th line: Other anticonvulsants (topiramate, carbamazepine, lamotrigine), cannabinoids (nabilone, dronabinol, sativex spray)

Alcohol Use and Pregnancy
Dr. Vyta Senikas

- Every woman of a child-bearing age should be screened for alcohol use, especially binge drinking (4+ drinks in < 2 hours)
- It is important to ask every pregnant female (regardless of age, occupation, education) about alcohol consumption; many women are still being missed!
- It is important that a mother's alcohol consumption during pregnancy be recorded on the CHILD'S chart as it is helpful to pediatricians when they are trying to diagnose FASD
- There is insufficient evidence regarding fetal safety or harm at low levels of alcohol use in pregnancy. There is insufficient evidence to define any threshold for low level drinking in pregnancy. The Canadian guidelines continue to recommend no alcohol during pregnancy as the prudent choice.

ED Procedural Sedation
Dr. Amit Shah

- ketamine doesn't lower BP and doesn't depress respiratory drive so there is a low risk of apnea.
- Side effects of ketamine include vomiting and post-procedural agitation as well as laryngospasm (1/5000).
- To counteract side effects, can use Ondansetron and Midazolam prior to ketamine
- However, newer studies have shown that the use of propofol before ketamine, counteract side effects and shorter recovery time from anesthesia.
- Always have your equipment ready (reversal agents, succinylcholine).
- Midazolam is good for short procedures but cannot use if seizures, alcoholic, or benzo use as patient may seize
- With procedural sedation, it is recommended patient by NPO for 3 hours prior

Vaginal Breech Delivery 101
Dr. Wieslaw Rawluk

1. Bracht Method of Breech Delivery (85% chance of success): The breech is allowed to deliver spontaneously to the umbilicus, body and extended legs are held together against the mother's symphysis pubis with suprapubic pressure from an assistant.
2. Don't pull.
3. Help from outside by following head abdominally and gentle suprapubic pressure.

Name of Presentation: Veterinary Issues in Public Health
Dr. Trace Mackay

1. Rabies post-exposure prophylaxis for those who have not been vaccinated before:
    - rabies immunoglobulin – total dose is 20 IU/kg (as much as possible of the full dose should be infiltrated around the wound(s) and any remaining given IM)
    - rabies vaccine – 1.0 mL IM at deltoid area 1 each on days 0, 3, 7, 14
2. Leptospirosis should be part of the differential diagnosis in the evaluation of fever in the returning travelling.
3. Prophylaxis guidelines for tick bites against Lyme disease: antibiotic prophylaxis

recommended only in patients who meet ALL of the following criteria:

- Attached tick identified as an adult or nymphal Ixodes scapularis tick (deer tick)
- Tick is estimated to have been attached for ≥36 hours (by degree of engorgement or time of exposure)
- Prophylaxis is begun within 72 hours of tick removal
- Local rate of infection of ticks with B. burgdorferi is ≥20 percent (these rates of infection have been shown to occur in parts of New England, parts of the mid-Atlantic States, and parts of Minnesota and Wisconsin)
- Doxycycline is not contraindicated (ie, the patient is not <8 years of age, pregnant, or lactating)

And One Little B'y Got It Right in the Eye: Fishhook Removal

Dr. Robert Forsey

1. Retrograde technique: downward pressure is applied to the shank of the fishhook while it is forced back out along the point of entry
2. String-Yank technique: eye of hook is pressed firmly down on the flesh and a monofilament string is tied around the bend to be used to pull the fishhook out
3. Needle Cover technique: advance needle to disengage barb, the needle is used to cover the barb and the fishhook is pulled out
4. Advance & Cut technique: advance hook, cut off barbed end, then pull hook out
5. Always clean, dress and ensure tetanus is up to date afterwards.

Diagnosis and Management of MCI and dementia

Dr. Linda Lee

1. Approach to patients with cognitive problems:
    a. Is it delirium?
        i. acute onset + fluctuating course
        ii. inattention
        iii. disorganized thinking or iv) altered level of consciousness
    b. Is it depression?
    c. Is it dementia, MCI, or normal aging?
        i. Dementia = objective findings of cognitive loss with impairment of ADLs
        ii. MCI = objective findings of cognitive loss without impairment of ADLs
        iii. Normal aging = no objective findings of cognitive loss; normal 3-word recall
    d. If it is dementia, what type(s)?
        i. AD: initial short-term memory loss
        ii. VaD/Mixed: risk factors for cardiovascular disease
        iii. FTD: younger age, behavioral symptoms and/or language impairment
        iv. DLB/PDD: bradykinesia / features of Parkinsonism, fluctuating cognition, visual hallucinations
2. Management
    a. If symptoms may represent atypical depression, consider a trial of antidepressants– eg. citalopram (Celexa) or venlafaxine (Effexor)
    b. Reduce or discontinue drugs that could interfere with cognition: Narcotics, Anticholinergics, Benzodiazepines

c. Trial of cholinesterase inhibitor may be reasonable for all patients with dementia with the exception of FTD and MCI.
    i. But get an ECG first. Avoid AchEIs or get 2nd opinion on use of AchEI if LBBB, 2nd or 3rd degree heart block, sick sinus syndrome, bradycardia with heart rate < 50.
d. Consider reporting to the MOT: FTD, DLB/PDD –should not be driving, Abnormal cognitive tests especially tests of visuospatial or executive function (Trails B), with on-road driving assessment if fitness to drive is unclear, or if Loss of 2 IADL's or 1 BADL.
e. Consider specialist referral:
    i. FTD
    ii. DLB/PDD
    iii. Atypical case where the diagnosis or management is unclear
    iv. Rapidly progressing dementia
    v. To support decision not to drive in difficult cases
    vi. If the patient or family member requests referral

Primary Postpartum Hemorrhage

Dr. Gillian Yeates

1. Etiologies: tone (uterine atony), tissue (retained products or clots), trauma (uterine, cervical, vaginal injury), thrombin (pre-existing or acquired coagulopathy)
2. Treatment for atony: oxytocin (or carbetocin), misoprostol, ergonovine, hemobate, uterine massage, balloon tamponade, emergency uterine artery embolization, emergency laparotomy (ligation of uterine or internal iliac vessels, compression sutures in the uterus, hysterectomy)

Practical approach to Common Sexual Dysfunctions

Dr. Victoria Winterton

1. OCP increases sex hormone binding globulin, can have significant impact on libido by binding extra testosterone.
    - May try switching to different OCP with higher androgen.
    - May try 3 month trial off OCP.
    - Check free testosterone level. Consider supplementation – andriol 40 mg q2d, androgel 1/3-1/2 packet, bioidentical cream 2mg/cc, apply 1cc daily.
2. There is good evidence for pelvic floor physiotherapy in dyspareunia.
3. In Premature ejaculation try Zoloft, Prozac or Clomipramine – use it daily or 3-4h before intercourse.
4. For low desire, consider having couple do "the Test" – she and partner have sex- during day after doing something fun and/or relaxing when neither are tired, no interruptions, no demands. Assess! 9/10 times unable to find the time and it is an issue of prioritizing.

Pigmented lesions – when to biopsy and whom

Dr. Jessica Howard

1. When in doubt, biopsy! Even if obviously malignant, cancer clinic often requires a tissue diagnosis anyway to accept patient. Biopsying does not result in micrometastases.
2. If you want to do immunofluorescence (in addition to histology), you need a different medium (preservative) - i.e., need two samples.

3. Generally suture punch biopsies greater than 3mm. Silk suture is much cheaper than prolene. For good cosmetic result of punch biopsy, pull skin perpendicular to tension line to create elliptical wound.
4. Billing pearl – wait for the pathology as you can bill more for different diagnoses (e.g., $80 for basal cell on face whereas before path result, can only bill Z116, $30 in the basket).
5. To follow people with multiple pigmented lesions, have them take photos annually with ruler next to lesion(s).

Contraception update

Dr. Patty Vann

1. The nuvaring is a well tolerated form of contraception, especially in those who have difficulty with compliance with OCP – easy to insert, rarely falls out. Fewer side effects than OCP.
2. Mirena IUD – learning curve to insert but company has program to replace if you drop it etc. For nulips, use misoprostol night before (she uses 400 mcg PV although person who spoke on endometriosis says she uses oral 200-400 mcg)
3. All currently available sub 50ug EE contraceptives can be used continuously. Length of regimen according to side effects and preference of woman. Minimum of 21 days and max of 7 days hormone free interval.

Pelvic pain: Endometriosis

Dr. Vyta Senikas

1. In an adolescent with pelvic pain where NSAIDs do not help, think of endometriosis. Most likely to present with acyclic pain. In the patient who has not been sexually active, not expected to do pelvic or rectal, may start 1st line treatment.
2. Negative diagnostic laparoscopy does not rule out endometriosis. May start treatment without laparoscopy.
3. Good evidence for depot progestin and mirena in endometriosis. GnRh agonists (Lupron) can be tried (best efficacy with 80-100% relief. Always need to give addback of estrogen. Contraindications to pill are not contraindications for this. Pill is 4-5X hormonal concentration of HRT.
4. Good resource is SOGC website (for patients): sexualityandu.ca. Can order contraception and endometriosis (coming soon) flip charts from SOGC for free.

The business of family medicine – Preparing for Your First Year of Practice

Dr. Steve Gray

1. Overhead can range from 20-50% so choose your practice carefully.
2. In your first year set aside 30% of your income for taxes. After the first year you will have to pay taxes in installments.
3. When building a practice, do not roster until the 2nd visit, then you can bill FFS for the first visit. Income stabilization is an option in capitation models. Admin staff should provide you with strategies (e.g., when to switch off income stabilization etc).
4. Generally capitation model results in higher income than FFS. Emphasis on family physicians providing a broader range of services.

Name of Presentation: IUD and Endometrial Biopsies

Dr. Dan Reilly: dreilly@mcmaster.ca

1. In general, recommends endometrial biopsy if age > 40 with heavy PV bleeding. Younger than 40, have to consider risk factors on an individual basis (e.g., hx of unopposed estrogen, PCOS).
2. If post-menopausal, states you can do an u/s, if lining <4mm and bleeding stops, no need to proceed. If recurs or continues, need to biopsy.
3. For IUD insertion, to ripen cervix, can give misoprostol 400-800 mg po/pv qhs. Advises in primary care to avoid putting mirena in < 2 months post-partum or if breastfeeding (increased risk of perforation). Cannot trust for contraception until in for 1 month. Encourage patient to keep it in for at least 3 months as bleeding should start to settle down by then.

References: www.danreilly.ca

Approaches to Female Urinary Incontinence

Dr. Dan Reilly

1. Think of acute etiologies (DIAPERS – delirium/dementia, infection/urethritis, atrophy, pregnancy, psychological, excess fluid intake, restricted mobility, stool impaction.
2. Treatment of overactive bladder: for ODBP have to start with oxybutynin (Ditropan), takes up to 3-6 months to take effect, 50% of patients do not tolerate. Detrol is next generation (gov't pays if ditropan tried first), takes 6-8 weeks for effect. Next generation is Vesicare (takes 4-6 weeks to take effect, less anticholinergic and neuro side effects). He generally sticks to these three meds.
3. Kegels for stress incontinence. Most women do not do enough – need 15 sets of dozen per day. Evidence it can help with mild stress incontinence. Some physios specially trained in this area.
4. Some women can use a tampon to create support or obstruction of posterior urethra. Pessaries can be used prior to surgery for a more conservative approach.
5. For mixed incontinence, surgery can make urge symptoms worse so may be better to try meds first.

References: Good article on urge incontinence: N Engl J Med 2010;363:1156-62.

C**onstipation in Children: Moving forward when they are backing up**

Dr. John Howard

1. Constipation - >98% idiopathic (holding), very small percentage is neurological, meds, hirschsprung's, metabolic (hypothyroidism, hypocalcemia)
2. For treatment, lifestyle modification, routine, diet therapy (water, fruit, fiber), laxatives. Avoids enemas, suppositories.
3. Preferred laxative is PEG 3350 (flavourless). Three phases: i) cleanout (PEG – 1 tbsp/4-6 oz drink), as much as he/she can take until no solid stools ii) colonic recovery – enough PEG to give 2 loose stools per day iii) osmotic withdrawal – add inulin, psyllium or ground flax – ½ -1 ½ tbsp/day. Reduce PEG by 10% per 2 weeks.
4. Can also use milk of magnesia – buy all 3 flavors, can sprinkle mint flavoured on chocolate ice cream
5. In general, PEG/Mg adds water, produces frequency. Soluble fibre soaks up water and gives consistency. If not going – increase PEG. If diarrhea/constipation – increase fibre.

References: Great website for pediatric gastroenterology: www.kidstummies.com (educational resources aimed at children), created by Dr. Howard.