Primary Care RAP February 2021 Written Summary

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Intro: All About Amitriptyline

Jay-Sheree Allen MD, Neda Frayha MD

Pearls:

- **Amitriptyline has a wide variety of uses from migraine prophylaxis, chronic pain, IBS and interstitial cystitis. However, the only FDA-approved use is for unipolar depression.**
- **Be cautious with use in those at risk of QT prolongation and in geriatric populations because of the anticholinergic effects.**
- **It can be a great medication for use in those with both depression and chronic pain.**

- **Uses**
  - Neuro:
    - Migraine prophylaxis
    - Fibromyalgia
    - Chronic fatigue syndrome
    - Post-herpetic neuralgia
  - Psych:
    - Unipolar depression (only FDA-approved use)
  - GI:
    - IBS
    - Functional dyspepsia
  - MSK:
    - Lower back pain:
      - Randomized clinical trial of 146 participants with chronic low back pain showed reduction in disability at three months
  - GU:

        - Interstitial cystitis
    - HEENT:
        - Sialorrhea
- **Mechanism of action:**
    - Tricyclic antidepressants that inhibit reuptake of serotonin and norepinephrine into the presynaptic neuron by blocking their noradrenaline and serotonin transporters
    - Also affinity for muscarinic, histaminergic and the adrenergic systems
- **Forms:**
    - Oral tablets - 10, 25, 50, 75, 100, 150mg
    - IV and IM form available
- **Initiation and tapering:**
    - Gradual increase in 10mg increments → may take 2-4 weeks for effects to be felt
    - May be divided twice in the day
    - Consider renal and hepatic impairment
    - Important to taper off if at high doses
- **Potential adverse effects:**
    - Anticholinergic effects
    - Sedation
    - Lowers seizure threshold in those with existing seizure disorder
    - LFT abnormalities (seen in 10-20% of patients)
    - QTC prolongation
        - Prospective cohort study done in The Netherlands demonstrated statistically significant increase in QTC
        - Cautious use in people with underlying heart conditions
    - Black box warning:
        - Risk of suicidal thinking and behavior in children, adolescents and young adults defined as 18 to 24 with major depressive disorder and other psychiatric conditions
- **Geriatrics:**
    - Beers Criteria - judicious use in those over 65 given anticholinergic effect, potential to exacerbate SIADH or hyponatremia
- **Pregnancy:**
    - Category C

- Crosses human placenta
- Metabolite nortriptyline present in breast milk

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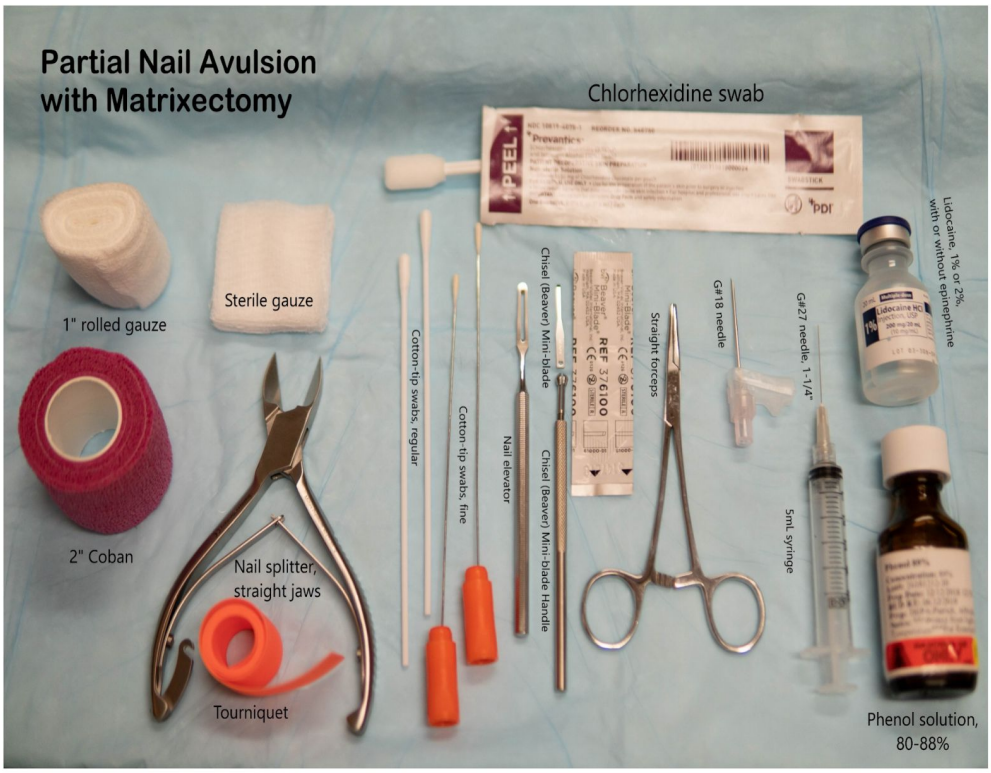
Proceed with Confidence: Onychocryptosis
Michael Baca-Atlas MD, John Doughton, MD

Pearls:

- **Indications for treatment of onychocryptosis is infection, chronic or severe stage, or significant pain.**
- **Surgical treatment is superior to non-surgical treatment.**
- **Phenol matrixectomy is superior to no matrixectomy and other forms of matrixectomy (silver nitrate, mechanical, electrocautery).**

- **Onychocryptosis:**
  - Nail plate starts to grow into the lateral nail fold and starts to cause inflammation, pain and potentially infection
- **Grading:**
  - Mild = little nail-folding, erythema, pain with pressure
  - Moderate = increasing granulation tissue
  - Severe = chronic inflammation, induration, epithelialization of granulation tissue
- **Treatment:**
  - Indications - chronic pain, infection, inflammation
  - Shared decision-making in determining surgical v. non-surgical
  - Evidence:
    - Cochrane Review 2012
      - 24 different randomized control trials
      - Bottomline: surgical management is superior to non-surgical. Chemical nail matrixectomy is the way to go.
  - Non-surgical:

        - Use a piece of cotton as a wedge under the problem area to lift the nail up over time
    - Surgical:
        - Remove the problem part of the nail and ablate the nail bed with phenol to prevent that part from growing back
- Surgical procedure:
    - Counseling:
        - Uncontrolled diabetes is a relative contraindication but there is no hard A1c cutoff. The risk is increased chance of infection.
        - Risks: bleeding, infection, return of ingrown nail
    - Tray set up is important



    - Templated notes can also help
    - Billing information
    - Tips and tricks:
        - The dogma of no epinephrine in the toes/fingers/nose has been refuted by the American Academy of Dermatology and early reports of it in the 1950's is attributed to the procaine use with epinephrine.

They recommend it now because it leads to faster onset of action and longer duration of anesthesia.
    - The digital nerve block can be done with two vertical injections, making sure to get deep enough to hit the two ventral and two dorsal nerves. Getting deep enough to the ventral nerves is important because it does the bulk of the innervation of the nail bed.
    - If you are going to use a tourniquet, you really need arterial pressure. With epinephrine you may not need the tourniquet.
    - Cut all the way down beyond the proximal nail fold to make sure to get to the nail matrix
    - If you have just have lateral nail involvement, partial avulsion is just as good as full avulsion of the nail
    - Phenol, two rounds of 60 seconds, at the nail matrix to prevent nail regrowth lessens your chances of recurrence
    - The other options for ablation:
        - Chemical ablation option includes silver nitrate which has similar success rate. However, longer duration of healing and more postoperative pain
        - Mechanical
        - Electrocautery (definitely inferior)
- Post-op care:
    - Regular gauze and 2-layer compression bandage (Coban) will do the trick
    - Keep dry for 24 hours
    - Wash with soap and water
    - Avoid submerging fully in water for several days
    - Avoid strenuous activity or tight-fitting shoes for at least 2 weeks

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Link to PDF

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Keeping Up with the Literature with Dr. Alan Ehrlich
Alan M. Ehrlich, MD and Paul D Simmons, MD

Pearls:

- **Have some sort of system for learning that may include multiple different resources.**
- **Think critically about the data and focus on the clinical outcomes that matter to your patients.**

- **Keeping up with the latest medical literature is hard!**
  - A new article is published every 26 seconds = 5,000 articles a day
- **Online resources:**
  - Journal Watch
  - ACP Journal Club
  - DynaMed
  - UpToDate
  - BMJ Best Practice
- **Textbooks:**
  - While they may be dated, it can help you have a physical reference for pictures that is supplemented with an online version like The Five Minute Clinical Consult
- **Conferences:**
  - Good place to hear the latest during protected time, potentially practice in-person and network with other colleagues
- **Journals:**

    - New information, large clinical trial journals (ie: Annals, NEJM, Lancet) → try to read the table of contents and choose an article or two to read more in depth
    - Review article journals (ie: American Family Physician) → the curriculum is more planned out but there is also a lag between writing and publishing leading to them becoming quickly dated
- **A potential program:**
    - Have some kind of system:
        - Breaking news source - daily email, podcast
        - Point of care tools - textbooks or something updated on a regular basis
        - Regular time set aside to stay updated - journals, regular conferences
- **Tips for evaluating the literature:**
    - Start with the conclusion → is this something that is clinically relevant?
    - How are the methods this study?
        - Blinding
        - Allocation concealment
        - Evidence of baseline disparities
        - Selective reporting of outcomes
        - Focus on surrogate outcomes instead of big clinical outcomes
    - Rarely should you change your practice based on one article
    - Systematic reviews of high quality are important to review, often used by experts (specialists, primary care, research) to create guidelines

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Light Chains, SPEPs, and MGUS
Victoria Giffi MD, Neda Frayha MD

Pearls:

- **Light chains are protein subunits of immunoglobulins and their ratio is key, not necessarily the absolute number. Infection and inflammation can lead to elevated levels that don't necessarily indicate malignancy.**
- **If both kappa and lambda light chain levels are increased, but the ratio is still normal, this is most likely due to renal insufficiency.**
- **If either kappa or lambda light chains are high and the ratio is all wrong, then the patient might have a plasma cell disorder that needs further workup.**

- **If you have an SPEP result with a polyclonal gammopathy, you likely have a patient with an activated immune system (ie: HIV, hepatitis, connective tissue disorder, liver disease).**
- **Monoclonal gammopathy of undetermined significance (MGUS) = a spike of less than one gram and having fewer than 10% plasma cells in the bone marrow.**
- **Only 1% of patients with MGUS progress to myeloma per year.**
- **Myeloma is a spectrum of disease that is increasingly treated like a chronic disease**

- **What are light chains?**
  - Albumin is the major protein in the blood
  - Other proteins are antibodies that are composed of both light chains (kappa or lambda) and heavy chains
  - If the ratio of kappa to lambda chains ("spike") is off that means there may be a plasma cell that is producing a monoclonal free light chain
    - It is rare to have a free light chain only MGUS but it can happen. A normal SPEP does not rule out a plasma cell disorder
    - Light chain disease is a specific problem that plasma cells get and usually requires some type of chemo for treatment. The light chains can build up in the kidneys (Bence Jones proteins) leading to renal failure, and less commonly bone marrow failure and anemia.
  - Pearl: high kappa and lambda light chains with a normal ratio are most commonly found in patients with renal disease because the kidney normally clears these proteins
- **SPEP (serum protein electrophoresis)**:
  - Consider ordering when working up unexplained anemia, renal failure, hypercalcemia, globulin or gamma gap (total protein - albumin > 4g/dL)
  - SPEP takes all proteins in the blood and separates them out
    - Biggest group is albumin followed by alpha, beta and gamma globulin
    - There is normally a predictable pattern where albumin spikes
    - If there is another spike, it is called an M spike (too much IgG or IgA) → need to do immunofixation to figure out which one it is
- **Tips on interpretation of the SPEP:**
  - If you have an overall polyclonal gamma globulinopathy, it usually means there is some ongoing infection or inflammation. You may even get a small

M spike for specific infections because the plasma cells are in overdrive to produce a specific type of antibody.
    - Similar to elevated gamma globulins, an elevated alpha globulin is where many inflammatory proteins migrate → another marker of inflammation
        - HDL also migrates to this region as well so inflammation can alter measurement
- **An elevated abnormal M spike:**
    - Most common is IgG because that is the most common plasma cell disorder
        - This may be classified as MGUS where the person will make lots of this IgG kappa with minimal consequence
        - It may also be that the IgG infiltrates the bone marrow, causes renal failure and leads to multiple myeloma requiring chemotherapy. Requires bone marrow biopsy and PET scan to diagnose.
- **MGUS (monoclonal gammopathy of undetermined significance):**
    - Definition: small monoclonal spike, usually less than a gram and in the bone marrow, less than 10% plasma cells → "precancerous state"
        - 1% per year progress to multiple myeloma
    - If you meet criteria you can monitor to make sure:
        - 1. Anemia
        - 2. Renal damage
        - 3. Lytic bone lesions
        - 4. Hypercalcemia
    - Monitor on annual basis:
        - BMP
        - Calcium
        - CBC
    - If they become fatigued or have any new concerning lab abnormalities, consult hematology
- **Myeloma**:
    - Incurable disease of the B cells (plasma cells are differentiated B cells)
    - Treated with chemotherapy if there is anemia, kidney damage, hypercalcemia or bone lesions (>60% bone marrow infiltration)
    - Chemotherapy can get things back to normal but the disease will always come back

    - Wide spectrum of disease: some disease will lead to death after few years or may be prolonged after 10-15 years
- **As a PCP, what to be on the lookout for with a patient who has myeloma:**
    - Chemo side effects (though it is generally well tolerated without hair loss or significant nausea)
    - Management of other co-occurring organ disease like renal failure
    - Preventative care like cholesterol and other cancer screenings because these patients can live for many years

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Primary Care of Gay, Bisexual and Other Men Who Have Sex With Men, Parts 1 & 2
Hayden Shafer, MD & Matt Zeitler, MD

Pearls:

- **Ensure you have a safe and inclusive space for MSM.**
- **STI screening recommendations are different for MSM.**
- **MSM are at increased risk of mental health issues like depression, anxiety and suicidal ideation.**

- *** For brevity sake, we will say men who have sex with men (MSM) to include those gay and bisexual who have sex with men ***
- **MSM**
    - 4% of people who identify
    - 9% of men in the US engage in sex with other men

    - Less are in ideal health than male straight counterparts
- **Create a welcoming environment**
    - Look at the practice environment and make sure there are inclusive pictures
    - Engage in safe zone training (Link): training on LGBTQ identities and gender and sexuality, the terms associated with them and examining your own prejudices. Learn use of pronouns
- **Examine your own biases**
    - Questions to ask yourself:
        - Are you comfortable providing care to gay and bisexual men?
        - Do I feel that same sex relationships are as valid as heterosexual relationships?
        - How do I feel about gay marriage?
        - Do I think that all gay men are promiscuous?
- **Asking about sexual practices:**
    - It is important to risk stratify based on sexual practices → if you don't ask you won't know
    - Good questions for sexual history
        - Are you having sex?
        - Who do you have sex with?
        - Do you practice oral sex, anal receptive sex or anal penetrative sex?
    - Questions for safe sex practices
        - Are you using condoms?
        - Are your partners using any barrier methods?
        - Are you using drugs during sex?
        - Have you had sex for drugs?
- **Sexually transmitted infections:**
    - MSM are at increased risk but not define them by that epidemiologic risk
    - Screening:
        - If more than one sex partner, screen for Hep C, HIV, GC/CT, Syphylis at least every 3 months
            - MSM account for 63% of all new HIV infections
            - Syphilis, gonorrhea, and chlamydia cases are increasing → data suggests this is independent of PrEP
        - May consider Hep A and shigella in certain parts of country where there are outbreaks

        - Important to be doing oropharyngeal rectal and urethral/urine
            - Pearl: You can miss 83% of gonorrhea and 76% of chlamydia infections if extra genital testing is not done. Many patients can be asymptomatic.
- **PrEP:**
    - **Discussed in PCRAP Dec 2017 episode**
    - Daily medication (emtricitabine/tenofovir or Truvada ©) used to prevent HIV infection
    - Indications:
        - MSM who had partner in past 6 months and had either anal sex without condom or STI in the past six months
        - Injection drug use
    - Testing/monitoring every 3 months
    - Other options (not fully evidence-based) for daily dosing include starting two days before condomless anal receptive sex and then daily for a couple of days aftewards
- **Mental health:**
    - Higher rates of depression and panic disorders
        - 4x likely than non-MSM counterparts
    - 2x higher increase in suicide attempts
- **Substance use:**
    - 2x likely to use tobacco
    - Higher use of methamphetamine and alkyl nitrites
    - More likely to use substances earlier in life
    - Alcohol use is about the same
- **Health care maintenance:**
    - Anal pap smears
        - Guidelines for MSM do not exist - consider offering to MSM acknowledging that the data are sparse
        - Procedure:
            - Use a regular cotton swab, ideally one without a wooden handle so as not to cause splintering
            - Place patient in lateral recumbent position
            - Insert swab about5-6cm and apply direct pressure in/around the tissue

            - Slowly withdrawal
            - Place swab in same solution that you'd use for pap smear
        - ** Make sure you have subspecialists who are comfortable handling abnormal paps **
    - Vaccinations:
        - HPV before 26 but allowed up to age 45
        - Hep A
        - Hep B
        - MCV
    - Hypertension
        - Increased risk
    - Skin exams
        - Increased risk of MRSA
- **Social support:**
    - Context:
        - Many may not be in contact with their biological family
        - Many may not have children
    - Conversation about surrogate, decision-makers is important

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Group Prenatal Care

Sara Mazzoni MD, MPH & Neda Frayha, MD

Pearls:

- **Group prenatal care is not for everyone (ie: system, patient, provider) but can be a great model for many people.**
- **Data on its effectiveness (clinical and cost) is mixed but has not been shown to be harmful**

- **What is group prenatal care?**
  - Prenatal care delivered in a group around 3 principles:
    - Support
    - Education
    - Assessment
  - Meant to replace traditional individual prenatal care
- **What does a group visit look like?**
  - Ideally 10 women
  - Chairs set up in a circle
  - Music playing
  - Snacks available
  - Come in and take their own vital signs, record in their own charts, do all the things that medical assistants tend to do
  - 1:1 quick discussion with individual provider
  - Group discussion about pregnancy
  - Typical sessions 1.5-2 hours long
  - Every other week
- **Who is an ideal candidate for this type of care?**
  - Adolescents
  - Women who don't need as much time with their provider (ie: low risk, uncomplicated pregnancies)
  - Women who share a common issue, like substance use disorder
- **How does billing work?**
  - There are no separate billing codes and you often use the same individual billing codes because you are doing the same thing in an individual visit
- **Disadvantages?**
  - Scheduling can be more difficult
  - Some providers and patients don't like the model
  - Physical space that is large enough where you also have some private space for the individual conversations
  - Other kids
  - Training
  - Language
- **Data on clinical outcomes:** overall data is mixed
  - One RCT showed reduction in rates of preterm birth

    - Meta-analysis did not show reduction in preterm birth but was reduced in African American women
    - Women in group are more likely to:
        - Breastfeed
        - Use postpartum contraception
    - Increased:
        - Satisfaction with their care
        - Knowledge about their pregnancy
    - Less likely to:
        - Use the ED in the third trimester
        - Gain too much weight during and after pregnancy
    - No differences seen in mental health
    - No harms have been shown
    - Cost-effective data is also mixed
- **Resources:**
    - Centers for Medicaid and Medicare Services - Strong Start for Mothers and Newborns
    - March of Dimes

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How to Get Paid!

Kim Yu MD, Paul Simmons MD

Pearls:

- **Billing errors are common, both underbilling and overbilling.**
- **Develop systems in your practice to help with billing: training, standard templates, compliance point-person, internal audits.**
- **The new system introduced January 1, 2021 is supposed to decrease documentation burden and incorporate social determinants of health.**

- **General facts about billing:**
  - Family physicians completed 38 million established patient office visits in 2016
    - 42% were 99213
    - 50% were 99214
  - There is on average a $40 difference between the two visit types
  - Billing helps ensure we are paid appropriately, patient diagnoses (including social determinants) are captured accurately and may be especially important for value-based contracts
- **Impact of COVID:**
  - Primary care physicians in the US on average lost $67,000 in gross revenue per FTE
- **Billing errors:**
  - 80% of medical bills contain errors
    - Out of 500,000 providers, 1,250 billed all their visits as 99215!
- **Systems Tips:**
  - Establish document and compliance standards
  - Provide extensive training
  - Set up internal auditing systems
  - Designate a point person for compliance
- **Don't forget you can bill for things like:**
  - Smoking cessation counseling - 99406
  - Cerumen removal
  - Destruction of benign lesions with cryotherapy
  - Modifier 25 for things that are above and beyond what you are already doing (ie: smoking cessation at a diabetes visit, headache management at a wellness visit)
  - Medication administration

        - Make sure you are billing the right dose (1g vs. 2g) and for the right equipment
    - Transitional care management (TCM)
        - After hospital discharge, patient should be called with two business days and seen with 7 or 14 calendar days NOT work days
    - Chronic care management
        - You can get between $43-92 per complex patient per month for their care to do all the non-face-to-face things (99490s, 99487s and add-on codes)
- **New guidelines in 2021:**
    - Started January 1, 2021
    - Overall goal of these changes is to decrease documentation burden
        - ROS is no longer required part of documentation
        - Streamlined: brief HPI, minimal exam and full assessment/plan
        - Medical decision-making is more important than H/P
    - Attendings can bill for time. Residents cannot. Just add the time you spent with the patient
    - Documentation of social determinants of health add to the complexity of medical decision making
    - Billing of 99212's will probably increase because it include simple URI and recheck of stable hypertensive patient
    - Billing of 99215's will probably also increase because it can include patient with multiple problems you are considering hospitalizing

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MAILBAG: INTUITIVE EATING

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PAPER CHASE #1: A Randomized Trial Comparing Antibiotics with Appendectomy for Appendicitis

Steve Biederman MD, Tom Robertson MD

The CODA Collaborative. A Randomized Trial Comparing Antibiotics with Appendectomy for Appendicitis. *N Engl J Med*. 2020;383:1907-1919. PMID: 33017106

Pearls:

- **Antibiotics were not inferior to appendectomy at 90 days. 30% of the antibiotic group ended up having an appendectomy by 90 days.**

- **Objective:** Compare antibiotic therapy to appendectomy in patients with appendicitis
- **Background:** Appendectomy has always been standard of care for appendicitis despite antibiotics shown to be effective in several RCTs. 95% of patients in US with appendicitis got an appendectomy.
- **Method:** pragmatic, non-blinded, non-inferiority randomized controlled trial comparing antibiotics for 10 days with appendectomy in patients with appendicitis
    - Primary outcome: health status at 30 days
    - Secondary outcome: appendectomy in the antibiotic group, as well as complications at three months
    - Excluded people who came in with shock or peritonitis
- **Results:**
    - 1500 adults presented to ED were randomized
    - Antibiotics were non-inferior to appendectomy when it came to quality of life scores at 30 days

    - About 30% of antibiotic group ended up with appendectomy
- **Bottomline:** Antibiotics were not inferior to appendectomy at 90 days. 30% of the antibiotic group ended up having an appendectomy by 90 days.

PAPER CHASE #2: The Effectiveness of Working Memory Training for Children With Low Working Memory
Steve Biederman MD, Tom Robertson MD

Spencer-Smith M, Quach J, Mensah F, et al. The Effectiveness of Working Memory Training for Children With Low Working Memory. *Pediatrics* Dec 2020; 146(6)e20194028. PMID: 33159002

Pearls:

- **Computer games did not improve children's working memory at six months.**

- **Objective:** Determine if computer memory games improved children's working memory
- **Method:** Randomized controlled trial assessing whether computer games that are designed to improve memory had an effect on memory compared to usual teaching
    - Children in first grade. Some had cognitive impairment, ADD who were classified as having low working memory
    - Primary outcome: change in baseline working memory test after 6 months
- **Results:**
    - 450 first-graders
    - ⅓ of children in each group showed improvement but no difference between groups
    - Children with hyperactivity or behavioral issues were less likely to show improvement
- **Bottomline:** Computer games did not improve children's working memory at six months.

PAPER CHASE #3: Association of Receipt of Palliative Care Interventions With Health Care Use, Quality of Life, and Symptom Burden Among Adults with Chronic Noncancer Illness
Steve Biederman MD, Tom Robertson MD

Quinn KL, Shurrab M, Gitau K, et al. Association of Receipt of Palliative Care Interventions With Health Care Use, Quality of Life, and Symptom Burden Among Adults With Chronic Noncancer Illness: A Systematic Review and Meta-analysis. *JAMA*. 2020;324(14):1439–1450. PMID: 33048152

Pearls:

- **Use of palliative care was associated with less acute healthcare use and modestly lower symptom burden, but there was no significant difference in quality of life.**

- **Objective:** Measure the association between palliative care and acute healthcare use, quality of life and symptom burden in adults with chronic non-cancer illnesses.
- **Method:** Systematic review and meta analysis to look through the literature for randomized controlled trials of palliative care interventions in adults with chronic non-cancer illnesses
    - Primary outcomes: acute healthcare use, quality of life and symptoms
- **Results:**
    - 28 trials providing data for close to 14,000 patients that included heart failure, COPD, dementia, and then some other mixed diseases
    - Palliative care interventions were associated with less ED use, less hospitalization and just slightly lower symptom burden
    - No difference in the groups between quality of life
- **Bottomline:** Use of palliative care was associated with less acute healthcare use and modestly lower symptom burden, but there was no significant difference in quality of life.

PAPER CHASE #4: Frequency and Types of Patient-Reported Errors in Electronic Health Record Ambulatory Care Notes
Steve Biederman MD, Tom Robertson MD

Bell SK, Delbanco T, Elmore JG, et al. Frequency and Types of Patient-Reported Errors in Electronic Health Record Ambulatory Care Notes. *JAMA Netw Open*. 2020;3(6):e205867. PMID: 32515797

Pearls:

- **Patients reported errors in medical documentation almost a quarter of the time, and half of those errors were deemed serious.**

- **Objective:** Assess the prevalence and severity of patient-reported errors in medical documentation
- **Background:**
    - Prior studies suggest patients' review of notes help in recall and understanding meds and conditions
- **Method:**
    - Large scale cross-sectional survey study assessing patient perceptions, specifically if they perceive mistakes in the documentation about their medical care. Survey of three large US health systems with a mix of community and academic settings.
- **Results:**
    - 29,000 responses
    - 21% reported a mistake
    - 50% of these mistakes were deemed serious
    - Older and sicker patients were more likely to report errors and more serious errors
- **Bottomline:** Patients reported errors in medical documentation almost a quarter of the time, and half of those errors were deemed serious.

PAPER CHASE #5: Effect of Sustained Smoking Cessation Counseling and Provision of Medication vs Shorter-term Counseling and Medication Advice on Smoking Abstinence in Patients Recently Diagnosed with Cancer
Steve Biederman MD, Tom Robertson MD

Park ER, Perez GK, Regan S, et al. Effect of Sustained Smoking Cessation Counseling and Provision of Medication vs Shorter-term Counseling and Medication Advice on Smoking Abstinence in Patients Recently Diagnosed With Cancer: A Randomized Clinical Trial. *JAMA*. 2020;324(14):1406–1418. PMID: 33048154

Pearls:

- **Among smokers recently diagnosed with cancer, sustained counseling and provision of free cessation medication resulted in higher six month quit rates.**

- **Objective:** Determine the effectiveness of sustained telephone counseling and medication compared with short term telephone counseling and just medication advice to assist patients who were recently diagnosed with cancer to quit smoking
- **Background:**
    - 10 to 30% of patients with cancer will continue to smoke after their diagnosis
- **Method:** multi-site unblinded randomized clinical trial comparing effectiveness of two tobacco treatments - sustained counseling + free smoke cessation meds vs. shorter term counseling + med advice
    - Primary endpoint: six month tobacco abstinence as measured by saliva collection
- **Results:**
    - Screened 5000 to get 300 enrollees → 78% completed the study
    - Abstinence was 34.5% and 21.5% in intensive group vs. standard
- **Bottomline:** Among smokers recently diagnosed with cancer, sustained counseling and provision of free cessation medication resulted in higher six month quit rates.