

Curbside Consults in Infectious Diseases

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“Can I ask you a quick question?”

Two parts:

1. Background on informal consultations
2. Interactive cases based on commonly-asked curbsides

Question

- Rank the following specialties in # of curbsides received:
 - Cardiology
 - Dermatology
 - Endocrinology
 - Infectious Diseases

Answer: We're #1!

- Rank of the following specialties in # of curbsides received:

1. Infectious Diseases
2. Cardiology
3. Endocrinology
4. Dermatology



“Can I ask you a quick question?”

- Infectious Diseases (ID) is the most frequently curbsided of the medical specialties
- In ID, curbsides exceed formal consultations
- In one medical web site, ID-related topics are the most common topic searched by MD users
- Capitation associated with increased use of curbside consultations – implications for “accountable care organization” model of care?

The Complexity, Relative Value, and Financial Worth of Curbside Consultations in an Academic Infectious Diseases Unit

Christopher Grace,^{1,2} W. Kemper Alston,^{1,2} Mary Ramundo,^{1,2} Louis Polish,^{1,2} Beth Kirkpatrick,^{1,2} and Christopher Huston^{1,2}

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- Prospective evaluation of curbside consults fielded by an ID Division over a 6 month period
- Results
 - 515 consults; 65% level 4, 7% level 5 (mod and high complexity, respectively)
 - Using common conversion factors of relative value units (RVUs), these consults accounted for 22% of clinical work done by this ID unit
 - No compensation – projected annualized loss of \$95,000
- Conclusion: “Curbside consultations are common and complex. The curbside consultation should be incorporated into measures of infectious diseases providers’ productivity and compensation.”

Question

As part of reorganization of care in a post fee-for-service environment, I have electronic access to a “pool” of specialists to answer my questions.

1. True – and it is a useful service.
2. True – but I still just call the people I know.
3. Not available.

eReferral — A New Model for Integrated Care

Alice Hm Chen, M.D., M.P.H., Elizabeth J. Murphy, M.D., D.Phil., and Hal F. Yee, Jr., M.D., Ph.D.

- Electronic model of adjudicating specialty (especially GI) referrals at SFGH to deal with high demand
- PCP provides information, reviewed by a dedicated group of specialists who may request further information prior to appointment
- Reduces demand for specialty services, as well as inappropriate referrals
- No mention of medico-legal risk

The True Value of Being a Cognitive Specialist

Dear Dr. Sax,

This is a friendly reminder about the online study we recently invited you to – X5328963_HIV.

Approximate interview length: 30 minutes

Honorarium: \$0

Thank you for your time – your views are important to us.

Question

- What should a specialist be paid for answering a curbside consultation?
 1. A percentage effort based on time “on call” responding to curbside consults
 2. \$50 – take yourself out for a nice dinner
 3. \$25 – a bit more than the smallest amount from the ATM
 4. \$8 – time is money, that’s your hourly rate
 5. Nothing – a pat on the back should be enough, stop your whining

HIV and ID Observations

An ongoing dialogue on HIV/AIDS, infectious diseases, all matters medical, and some not so medical.

April 22nd, 2015

Seriously — How Much Would You Pay for a Curbside Consult?

Yes, seriously.

Let me start with an email exchange I had with a PCP recently:

Hi, Paul, quick question 😊 This lady, 49 YO woman from Haiti, asymptomatic, totally healthy. Got TSpot done for immigration purposes, it's positive with negative chest Xray. Treated with INH 6 months in 2001. She travels to Haiti annually so could had been reexposed, though doesn't report being with anyone with TB. Do I need to treat her again? THANKS!

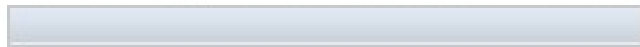
Carla



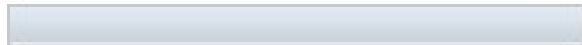
<http://blogs.jwatch.org/hiv-id-observations/index.php/seriously-how-much-would-you-pay-for-a-curbside-consult/2015/04/22/>

How much should an ID doctor be paid for a curbside consult?

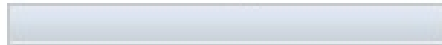
Percentage effort based on time "on call" for curbsides (32%, 214 Votes)



\$25 — a bit more than the smallest amount from the cash machine (29%, 194 Votes)



\$50 — take yourself out for a nice dinner (22%, 147 Votes)



Nothing — a pat on the back should be enough, stop your whining (12%, 82 Votes)



\$8 — time is money (5%, 23 Votes)



Total Voters: **660**

<http://blogs.jwatch.org/hiv-id-observations/index.php/seriously-how-much-would-you-pay-for-a-curbside-consult/2015/04/22/>

Handy ID Resources

- Gilbert DN, et al: The Sanford Guide to Antimicrobial Chemotherapy
- AAP Red Book: Report of the Committee on Infectious Diseases
(aapredbook.aappublications.org)
- Travel medicine: www.mdtravelhealth.com

Handy ID Resources

- Immunizations: www.immunize.org, “Ask the Experts”
- IDSA Practice Guidelines:
www.idsociety.org/idsa_practice_guidelines
- aidsinfo.nih.gov
- www.cdc.gov

A Good Curbside Consult

Paul,

Dog has Lyme; does dog's owner need treatment too?

No symptoms.

John

p.s. I'm extremely grateful for your expert assistance with this important clinical matter. Where to I send the check?

Not a Good Curbside Consult

Dear Paul,

Hi, Sorry to bother you, I have a patient with history of infected hardware with MRSA and osteo of R ankle which required surgery and removal the hardware a few years ago. I saw her today with severe pain in calf. The Ultrasound shows soft tissue swelling, no DVT, and they suspect cellulitis; there was just a 2 mm erythema on her skin.

She is allergic to bactrim, vanco, rifampin, doxycycline.

Should I suspect this will be MRSA again? I am not sure what to give to her for abx given her multiple allergies.

She didn't have any fever or chills, she just has some swelling and pain, even didn't look like cellulitis on exam, but I'm sure it will get worse.

I really appreciate your input on her sooner rather than later so I can reach her and give her a treatment plan. Please also let me know how long you would treat her.

John

Also Not a Good Curbside Consult

Hey -- quick question. can you review test results MR#27389213? He's coming in to see me later today so I need to know ASAP what to do.

Thanks in advance,

Rochelle

Difficult Curbside from Another ID Doctor

Hey, could I ask you a quick question?

This is a 56yo man from Dominican Republic dx with HIV 1997. His initial CD4 was 233 and he has always refused HAART due to fear of side-effects mostly. Most recently CD4 90(9%) w/ VL>750,000. His course has been complicated by weight loss and weakness and recurrent thrush. He has painless cholestatic hepatitis with alk phos elevations to 800 in the past and normal to mildly elevated transaminases. As part of an evaluation for this a year and a half ago, he had viral hepatitis titers/PCRs which were all negative and an ANA which was >1:1600. Biopsy at the time was incredibly non-specific with the pathologist actually writing "consistent with viral hepatitis vs drug effect vs autoimmune hepatitis". He drank regularly at the time and stopped alcohol around then. He saw a hepatologist who tried to put him on prednisone - which he took for a few days and then never went back. Six mos ago I took him off bactrim and replaced it with AP and his alk phos has slowly come down to low 200s. Over the past year and a half, other problems have turned up. He's always had trouble with pills, but his dysphagia progressed and work-up showed a severe esophageal inlet stricture with large zenker's. Neck CT showed no extrinsic compression. He's required several dilations. With progressive weakness, he actually had electrodiagnostic studies showing severe proximal > distal myopathy and the usual sensory polyneuropathy. His highest CPK has been around 350 and currently it's back down to normal. He has to walk with a rolling walker with a fold out bench. He had an ESR a yr ago of over 100 (I believe it was sent because of the myopathy initially). Currently ESR is 145. He has chronic anemia, usually with hct 30, but over the past 6mos hovering around 25. I should also note that his PPD was negative twice recently. I have no records of priors, but he recalls them being negative and he denies any family members having known TB while in DR. Due to progressive wt loss, anorexia, and weakness, I repeated a CXR and it showed a small ?pleural based density on the right. Chest CT confirmed an old granuloma in the anterior RLL and a new 2.5cm density surrounding it...

Question

What do you do with advice you receive from ID doctors via a curbside consult?

1. Cite the ID doctor's name and summarize recommendation in the medical record
2. Cite “reviewed with ID” and summarize recommendation in the medical record
3. Proceed with recommended plan without citing doctor or ID

Question

What is the legal risk to the ID doc for curbside consults?

1. None; no relationship with the patient
2. Can be cited in a suit if name is in the chart, but probably will be dropped
3. Just as risky as if care is provided

Curbsides: Advice from Risk Management

- Specify in “boilerplate” language that your advice is general and does not apply to a specific patient
- Offer to see the patient for a formal consultation
- Avoid reviewing a medical record or test result of a patient you have never seen
- *Document everything*

Boilerplate Statement Example

[A doctor] would be well-advised to include a standard, boilerplate statement (to use either in conversation or in e-mail responses) that clarifies the limit of the consult.

For example she could say: “I’ve looked at this [result], but it’s not enough for me to render specific medical advice. At your request or the patient’s request, I would be happy to become involved in evaluating [him/her] and get involved in [his/her] care,” or “this image suggests [the following things] and should be followed up by the patient’s treating team.”

Case Presentations

Participation Required!

Case

- 82 year old man, subacute mild cognitive decline
- As part of w/u, has syphilis testing:
 - TP-EIA positive; RPR 1:1; TP-PA positive
- General PE normal
- No prior treatment for syphilis

Case

How would should this be managed?

1. Discount results since RPR is so low (1:1)
2. Treat for latent syphilis with benzathine PCN x 3 doses
3. CSF exam in the office; base treatment on results
4. Refer to neurology to assess for likely cause of dementia

Syphilis Alphabet Soup

- RPR
- VDRL
- TRUST
- MHA-TP
- TP-PA
- FTA-ABS
- TP-EIA



"Before I begin, one of the acronyms I'm going to use is completely made up. See if you can figure out which one."

Use of Syphilis Tests

Screening

- RPR
- VDRL
- TRUST
- TP-EIA

Confirmatory

- FTA-ABS
- MHA-TP
- TP-PA



Positive Darkfield Test

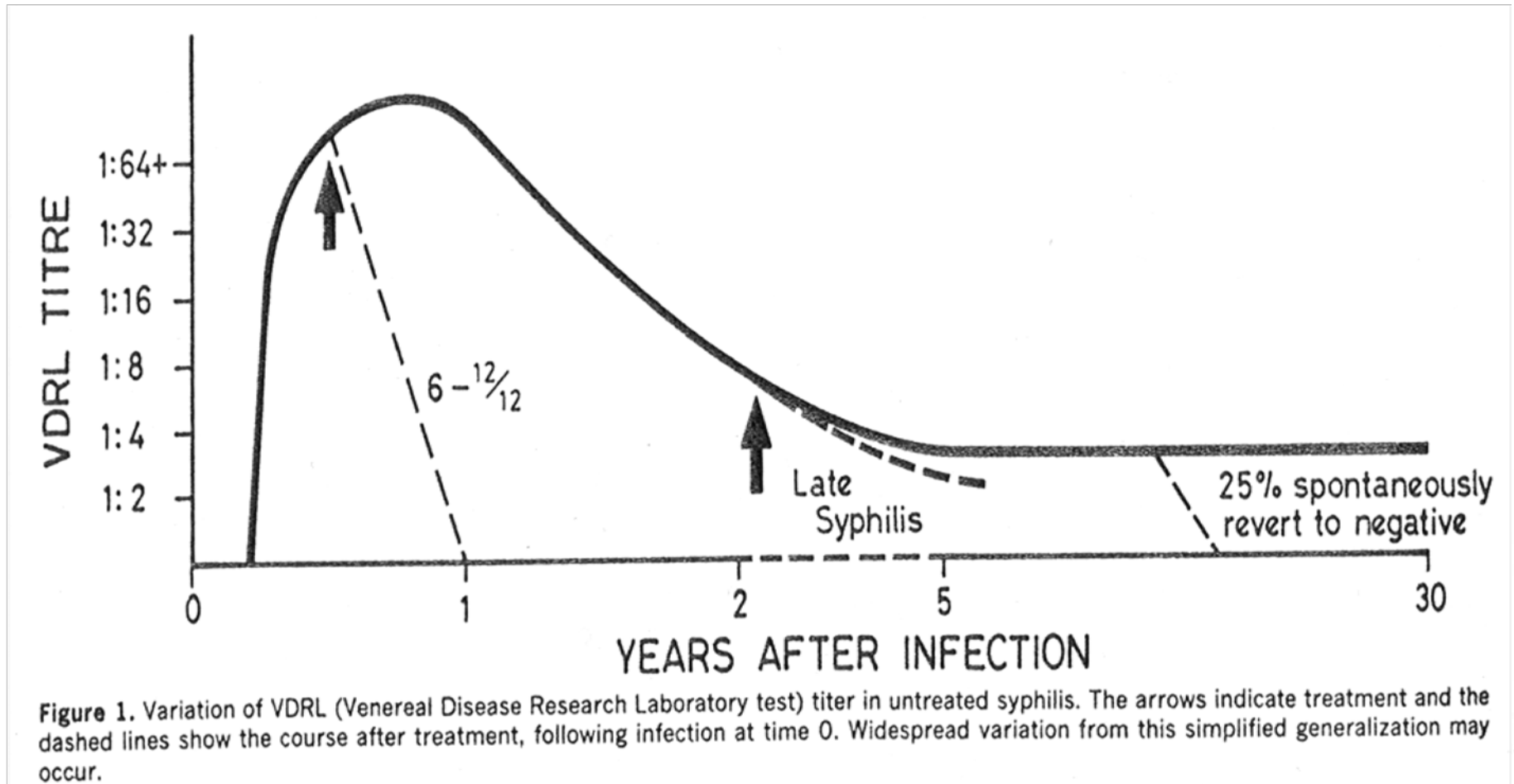


Rabbit

Syphilis: Non-Treponemal Tests

- VDRL, RPR
- Detect non-specific AB directed at cardiolipin-
lecithin-cholesterol antigens (“reaginic” AB)
- False-positives common, usually low titer
- Used for: screening, following response to
treatment

Change in VDRL/RPR Titer Over Time



Treponemal Tests

- FTA-ABS, MHA-TP, TPPA, and treponemal-EIA (TP-EIA)
- Detect *specific* AB directed at *T. pallidum* antigens; however, false + rarely occur
- Recorded as reactive or non-reactive
- FTA-ABS, MHA-TP, TPPA used for confirmation of reactive RPRs
- TP-EIA increasingly used for screening in high volume settings

Don't Fall For This Trap

Hi Paul,

Quick question – I sent an RPR on a patient who has mild dementia and it came back positive. I don't really think she has neurosyphilis.

What should I do?

Thanks,

Scott

Case

- 75 year-old woman with questions about the zoster vaccine
- Cannot remember if she had chicken pox; never had herpes zoster
- Husband has CLL and is receiving chemo
- She is concerned about transmitting vaccine virus to him

Case

What is the recommended approach?

1. Give the vaccine – no risk to husband
2. Give the vaccine – only risk to husband is if she develops vaccine-related rash
3. Don't give the vaccine without checking both his and her varicella antibody first
4. Do not administer the vaccine – it is contraindicated for immunosuppressed patients and their household contacts

Zoster Vaccine

- Live attenuated virus
- 14X strength c/w varicella vaccine
- Indicated for immunocompetent adults > 60

Zoster Vaccine: Who's Immunocompromised?

- Neoplasms affecting the bone marrow or lymphatic system
 - Post treatment: assess on case-by-case basis
- Acquired or congenital defects in cellular immune function
- HIV with symptoms or CD4 < 200/15%
- Immunosuppressive therapy
 - Prednisone ≥ 20 mg/d for ≥ 2 weeks
 - Recombinant human immune mediators and immune modulators (e.g. TNF blockers)

Varicella: Who Can be Considered Immune?

- History of chicken pox
- Healthcare-provider diagnosis of zoster
- Lab evidence of immunity
- Prior receipt of varicella vaccine (2 doses)
- **US-born before 1980**
 - Date of birth does not apply to immunocompromised, pregnant women, or healthcare workers

A Typical VZV Curbside Exchange ...

Subject: Cellcept and Varicella

Paul,

I have a patient on cellcept for dermatomyositis. Her son has just been diagnosed with chickenpox. She had it at age 11. Would you consider prophylactic Acyclovir? or assume she has immunity given that she had it before? If so how much Acyclovir? For how long?

Tony

Subject: RE: Cellcept and Varicella

Tony,

If she had chicken pox as a child, you do not need to worry. In the rare cases where people get it twice, the 2nd case is usually very mild.

Regards, Paul

A Typical VZV Curbside Exchange ...

Subject: Cellcept and Varicella

Cellcept doesn't change your mind? I'm a worrier!!!

Subject: RE: Cellcept and Varicella

We have lots of immunosuppressed patients out there (organ transplants, AIDS, biologics, etc) who get exposed to chicken pox, and if they're immune, nothing happens. (I assume she has not had a bone marrow transplant from a non-immune person!)

But if you're worried, and you'd rather do "something than nothing," you are free to give her acyclovir -- it's incredibly safe. You'll have to make up some dose/course.

Paul

Zoster Vaccine: Other Common Questions

- Should it be given to those with a prior history of zoster?
- Given FDA approval, should it be given to those younger than 60?
- Given lack of proven efficacy, should it be given to those older than 80?
- Should it be given to HIV+ patients? If so, which ones?
- When are supply, cost, and distribution issues going to be resolved?

Extra Credit

24 year old woman, planning first pregnancy. Received chicken pox vaccine as child. Varicella titer is checked and is negative. You recommend:

1. Booster with varicella vaccine – she hasn't responded
2. Booster with zoster vaccine – it's more potent
3. Nothing – the assay is unreliable for post-vaccine immunity
4. I'd ask an ID doctor

Case

- 64 year-old medical transcriptionist, calls you regarding upcoming dental work
- Six months prior, underwent elective hip replacement for OA, uncomplicated; tolerated perioperative cefazolin
- She requests prescription for antibiotics based on her dentist's and orthopedist's recommendation

Case

What is the recommended approach?

1. amoxicillin 2 gm PO 1 hour before the procedure
2. cephalexin 2 g PO 1 hour before the procedure
3. clindamycin 600 mg IV 1 hour before the procedure
4. no prophylaxis indicated

Dental Prophylaxis for Endocarditis: The Logic Behind It and *Now Suggestive Data*

- Dental procedures may induce bacteremia with oral flora
- These bacterial species commonly cause endocarditis, a serious condition
- Animal models demonstrate the efficacy of antibiotic prophylaxis
- *Endocarditis cases have increased in Great Britain since guidelines stopped recommending prophylaxis around dental work*

Endocarditis Prevention Guidelines: Procedures

1. Dental: gingival manipulation, perforation of mucosa
2. Respiratory mucosa
3. Infected skin/soft tissue

Not recommended for GU or GI procedures

Endocarditis Prevention Guidelines: Cardiac Conditions

1. Prosthetic valve
2. Prior infective endocarditis
3. Congenital heart disease with shunts, conduits, patches
4. Cardiac transplant with valvulopathy

Dental Prophylaxis and Prosthetic Joint Infections (PJI)

- Most common microbiologic causes of PJI: Staph aureus, coag-neg Staph, beta strep
- “Oral flora” account for approx 1-2% of cases
- Dental procedures linked to PJI only by case reports, very limited animal data
- CEA have repeatedly failed to demonstrate the utility of prophylaxis for this purpose

However ...

“The less the evidence there is, the more antibiotic we give.”

--Unknown Surgeon

Hi Paul,

Sorry to bother you. I have a pt who is 5 years s/p knee replacement, recently s/p C diff infection. Needs a colonoscopy. Has been advised by her orthopedic surgeon to be pretreated with antibiotics prior to having a colonoscopy. She is understandably concerned about causing another bout of C. Diff. Should I treat her with empiric Flagyl after she gets the amoxicillin?

Thanks.

Conditions to “Consider” Giving Antibiotics Before Dental Work to Prevent PJI

- Joint replacement < 2 years prior
- Inflammatory arthropathies (e.g. RA)
- Immunosuppression
- Diabetes
- History prior PJI
- Malnutrition
- Hemophilia



AAOS 2009: Give Prophylactic Antibiotics Indefinitely s/p Total Joint Replacements

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Information Statement




Antibiotic Prophylaxis for Bacteremia in Patients with Joint Replacements

This Information Statement was developed as an educational tool based on the opinion of the authors. Readers are encouraged to consider the information presented and reach their own conclusions.

This statement represents the AAOS' current recommendations on this topic. The AAOS regularly reviews and updates all informational statements as new technology, evidence, or policy is developed. It is possible that these current recommendations may change as the result of the ongoing clinical guidelines development process around the topic of antibiotic prophylaxis for total joint patients undergoing dental procedures. As such, clinicians are encouraged to consider the recommendations in the context of their specific clinical situation and consult, where appropriate, other sources of clinical, scientific, or regulatory information prior to making a treatment decision. Clinicians are encouraged to check the AAOS website for the most up-to-date information.

More than 1,000,000 total joint arthroplasties are performed annually in the United States, of which approximately 7 percent are revision procedures.¹ Deep infections of total joint replacements usually result in failure of the initial operation and the need for extensive revision, treatment and cost. Due to the use of perioperative antibiotic prophylaxis and other technical advances, deep infection occurring in the immediate postoperative period resulting from intraoperative contamination has been markedly reduced in the past 20 years.

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**PREVENTION OF ORTHOPAEDIC IMPLANT
INFECTION IN PATIENTS UNDERGOING DENTAL
PROCEDURES**

**EVIDENCE-BASED
GUIDELINE
AND EVIDENCE REPORT**

- *"The practitioner might consider discontinuing the practice of routinely prescribing prophylactic antibiotics for patients with hip and knee prosthetic joint implants undergoing dental procedures."*

Bottom Line on Prophylactic Antibiotics for Dental Work



If you're asked about it, and it's not for prevention of endocarditis, don't do it!

Case

- 36 year-old advertising executive with loose stools, bloating x 1 month
- Dates symptom onset to an extensive business trip to Asia, including Indonesia, China, and Nepal; pt convinced he has a “parasite”
- PE: No weight loss. Stool O/P exam: many *Endolimax nana*

Question

What do you recommend?

1. Metronidazole 750 mg PO TID x 10 days
2. Nitazoxanide 500 mg PO QID x 10 days
3. No therapy indicated; provide reassurance
4. No therapy indicated; continue stool exams looking for alternate causes of his symptoms

Parasites are confusing ...

Hi Paul, 63 y/o female with h/o HTN and DM, presents for evaluation of "severe" anal itching x 2 weeks. Itching is worse at night and she does not believe it is diet related or associated with defecation. She is concerned she might have whip worm because her dog was recently dx with this. She reports stomach grumbling and excessive gas, but states she has always had this problem.



After her exam I think cause is a hemorrhoid. Can whip worm be transferred from dogs to humans? Is it safe for her to take her dog's medicine? (I think she has already done this.) Also, I have always understood that whip worm typically presents with bloody diarrhea. Is this correct? Thanks, Brenda

Pathogenic Intestinal Protozoa

- Definite

- *Entamoeba histolytica* -- travelers, invasion
- *Giardia lamblia* -- most common
- *Dientamoeba fragilis* -- eos, Rx tetracycline
- Cryptosporidia, microsporidia, isospora, cyclospora -- need special stains

- Possible

- *Blastocystis hominis* -- conflicting data, Rx metronidazole 750 TID x 10 days

Non-pathogenic Intestinal Protozoa

- Amoebae
 - *Entamoeba hartmanni*
 - *Entamoeba coli*
 - *Entamoeba polecki*
 - *Endolimax nana*
 - *Iodamoeba butschlii*
 - (*Entamoeba dispar*)
- Flagellates
 - *Trichomonas hominis*
 - *Chilomastix mesnili*

Aucott JN, et al. Infect Dis Clin North Am 1993; 7:467-85. Start D, Int J Parasitol. 2007 Jan;37(1):11-20; Boorom KF, Parasit Vectors. 2008; 1: 40.

Non-pathogenic Intestinal Protozoa

- Presence of organisms indicate fecal contamination of food and/or water
- If found in a patient without symptoms, no treatment or further work-up necessary
- In symptomatic patients, especially with weight loss, aggressively pursue further studies:
 - Antigen studies – in particular for giardia, cryptosporidia
 - Special stains for cryptosporidia, microsporidia, isospora, cyclospora
 - GI referral
- N.B. Post-travel irritable bowel – without weight loss – very common

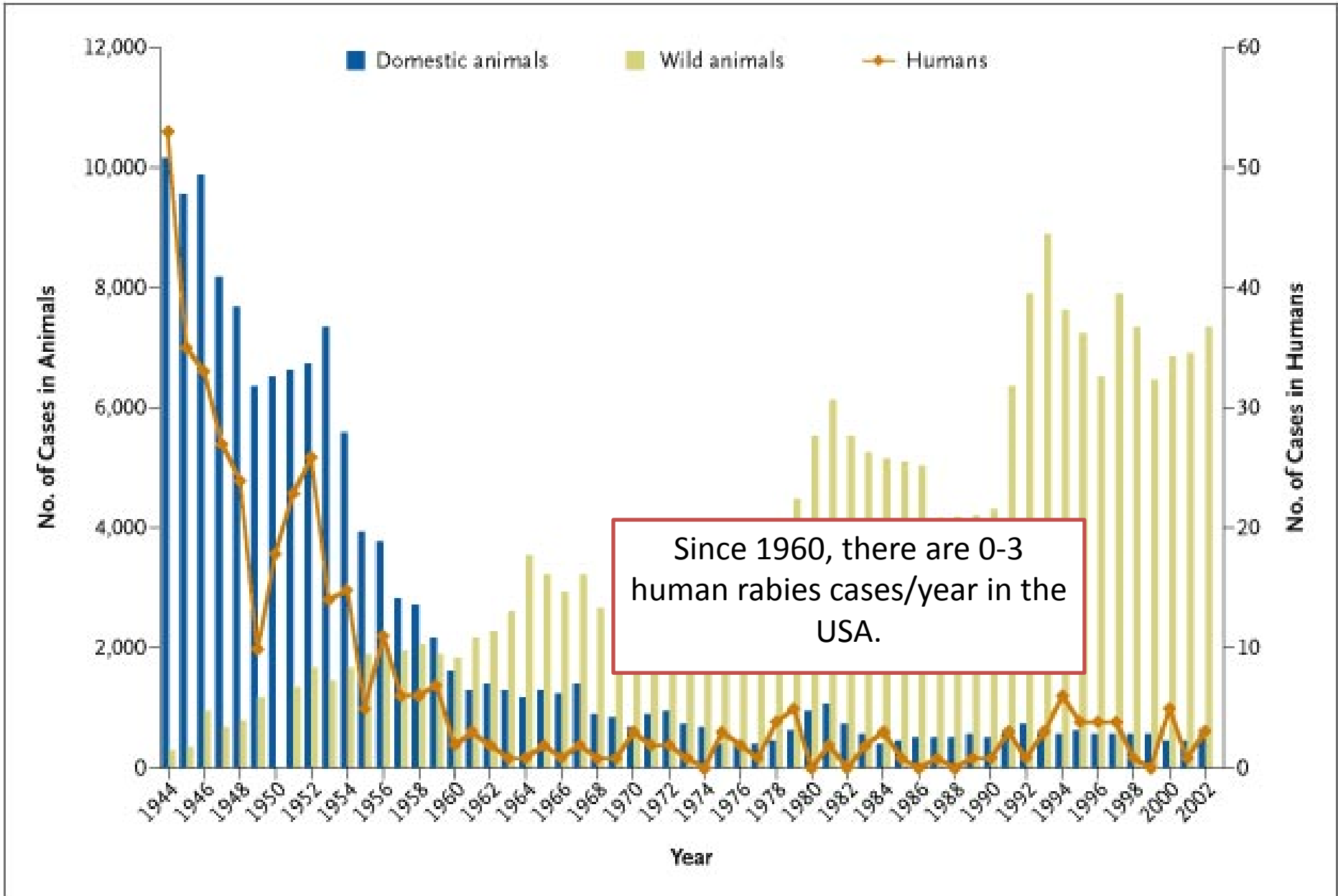
Case

- 46 year-old thoracic surgeon, contacts you for advice
- Bats seen in his house: in living room on several occasions, once in 4 year-old son's room while child was sleeping
- Opened windows and bats flew out
- No apparent contact with bats at any time

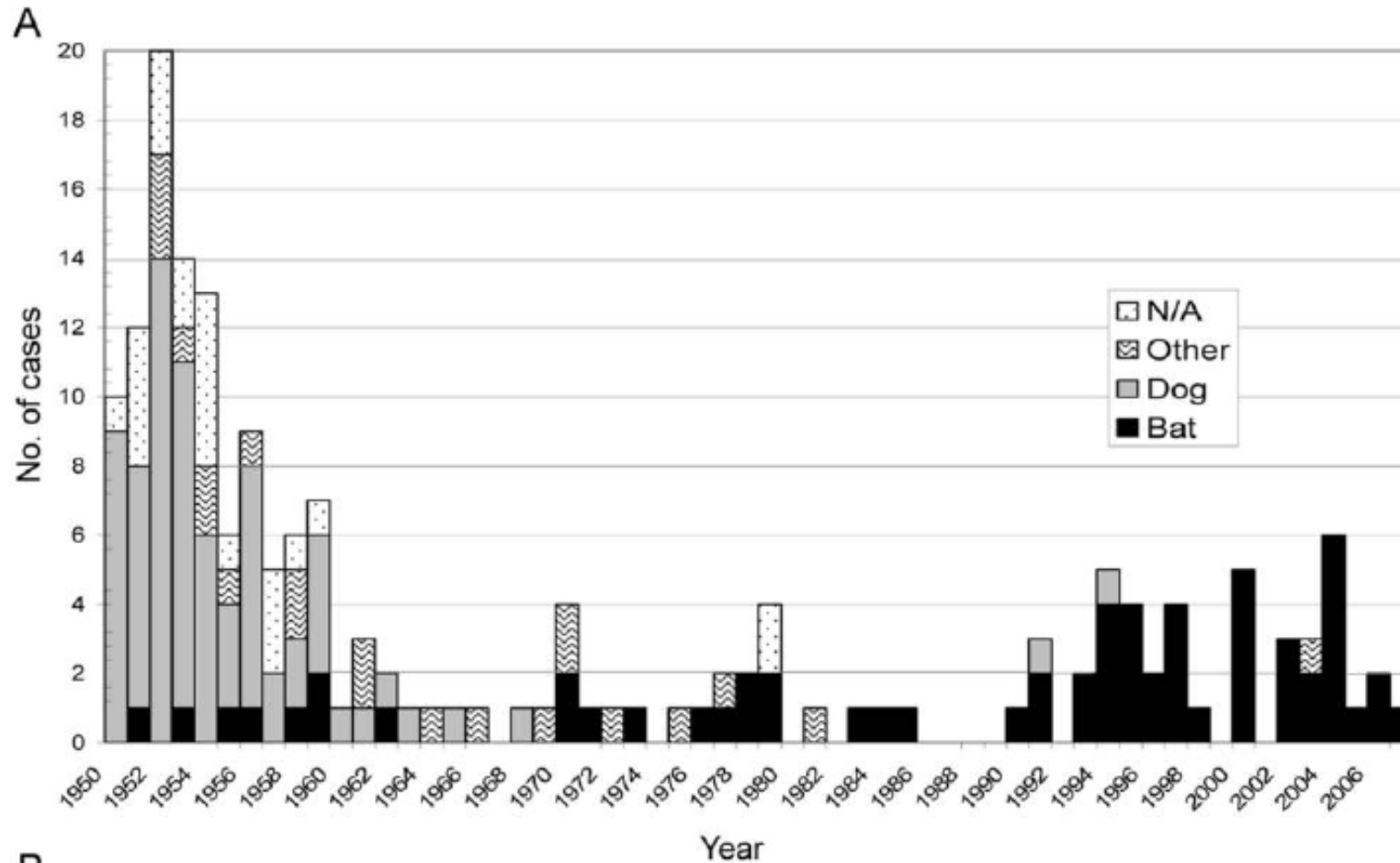
Case

What is the recommended approach?

1. Administer both human rabies immune globulin (HRIG) and begin rabies vaccine series for all household members
2. Administer both HRIG and begin the vaccine series for the child
3. Attempt to capture a bat for the DPH
4. No active or passive immunization needed



Most Rabies in the USA is from Bat Exposure



Bat Contact: Guidelines

“The risk for rabies resulting from an encounter with a bat might be difficult to determine because of the limited injury inflicted by a bat bite ...Situations that might qualify as exposures include finding a bat in the same room as a person who might be unaware that a bite or direct contact had occurred (e.g., a deeply sleeping person awakens to find a bat in the room or an adult witnesses a bat in the room with a previously unattended child, mentally disabled person, or intoxicated person).

”

Home



Rabies virus



Animals



People



Prevention



Test



Rabies



What is rabies ?



Derrick

Can bats give you rabies ?



Sandy

How do you know if an animal has rabies ?



Amy

Sean and the Raccoon

When Sean was 11 years old, he was camping with his class at the Okefenokee National Wildlife Refuge in Georgia.



Get The Facts



Warning Signs



Have a Bat in your House *Right Now?*

A bat in your house can be a frightening experience. It is also a potentially serious situation. With the information on this page, you can handle this in a calm and safe way.

Good decision making right now can save you worry and money. Please read carefully.

What to do with the Bat in your House

First - a couple things to keep in mind:

- The bat wants out of the house - there is no food or water for it in your home.
- The bat is disoriented and lost.
- Bats are not aggressive - but will bite if cornered.
- Bats teeth are very small. They can not bite through jeans or leather gloves.
- A percentage of bats carry rabies.

Step One - Important!

If there is *ANY* chance the bat has come in contact with someone in your house, the situation needs to be handled as a potential rabies exposure. A bat bite can be very small, and may not be detected.

- Was the bat discovered in a room where someone was sleeping?
- Are there young children who may not communicate their contact with the bat?
- Is there a dog or cat in the house?

If the answer is yes, there are only two options: either the bat must be captured and tested

Articles

- ["Bats Are Our Friends"](#)
- ["Deadbeat Tenants in Hidden Spaces"](#)
- ["Bat Related - Human Rabies"](#)
- ["Bats And Rabies"](#)
- ["Bed Bugs - Or Bat Mites?"](#)
- ["Bats and Property Damage"](#)
- ["Insurance Companies and Bat Exclusion!"](#)
- ["Histoplasmosis - The Other Hazard of Bats"](#)
- ["Get That Bat Out of My House!"](#)
- ["Hiring a Bat Exclusion Expert"](#)

Rabies Vaccination after “Occult” Bat Exposure: Time to Reconsider?

- <5% of such exposures receive vaccination
- Incidence of rabies from bat in bedroom but no actual contact: 1 case per 2.7 *billion* person-years
 - Number needed to treat to prevent one case: 2.7 *million*
- If all eligible cases actually received vaccination, this would require 49 physicians and 491 nurses working full-time for a year
- Canada no longer recommends prophylaxis for bats in bedroom; USA still does



“Don’t mind me, Richie – it’s just the rabies talking.”

Extra Credit ...

Several case scenarios:

- A. A 32 year-old woman goes to her doctor when, after feeding a wild raccoon with a baby bottle, she took some sips of milk from the bottle herself to see if she could increase the flow.

Extra Credit

- B. A woman returns from a trip to the Galapagos Islands, where she was bitten on the hand while trying to pet a sea lion. She comes to see you requesting rabies vaccination.

Extra Credit

- C. A couple attends a “Champagne Cruise” on a warm summer evening, and the woman accuses her date of putting his hands under her skirt (he denies). Later that evening, she finds a wounded bat trapped under the elastic of her underwear.

Extra Credit

- D. A child finds a new piece of upholstered furniture in her dollhouse. After playing with it for several hours, she brings it to her mother. On closer inspection, it is in fact a dead bat, time of death unknown. They both seek rabies vaccinations for themselves.

Extra Credit

- E. The Massachusetts Department of Public Health learns that a child has brought a dead bat nailed to a wooden board to a South Boston public school. Many children have handled the bat, many others can't remember. The bat is analyzed for rabies at the State Lab, and is too decomposed for definitive results.

Extra Credit

- F. A 45 year old woman finds a bat in her house, and knocks it to the ground with a tennis racquet. Her husband then pounds it with a baseball bat, picks it up with a plastic bag and brings it to the State Lab for examination. At the State Lab, they are unable to find any bat brains at all. The couple requests rabies immunizations, and asks whether they should move out of the house because of the risk of aerosolized rabies virus.

Extra Credit

Which case scenario is fictitious?

- A. Raccoon/baby bottle
- B. Galapagos/petting/sea lion bite
- C. Champagne cruise/bat flew under skirt
- D. New dollhouse furniture (bat)
- E. Bat nailed to board/school Show and Tell
- F. Aerosolized bat brain
- G. None of the above