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Marco Blogsite: marco-Ltd.blogspot.com
"listserve": *http://googlegroups.com*

Web Site: http://www.marco-ltd.org
Internet address: warren.brown1924@gmail.com

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TELEMEDICINE IS CHANGING HEALTH CARE

DRIVEN BY FASTER INTERNET CONNECTIONS, SMARTPHONES AND CHANGING INSURANCE STANDARDS, MORE DOCTORS ARE TURNING TO ELECTRONIC COMMUNICATIONS TO PRACTICE MEDICINE

After years of big promises, telemedicine is finally living up to its potential.

Doctors are linking up with patients by phone, email and webcam. They're also consulting with each other electronically—sometimes to make split-second decisions on heart attacks and strokes. Patients, meanwhile, are using new devices to relay their blood pressure, heart rate and other vital signs to their doctors so they can manage chronic conditions at home.

Telemedicine also allows for better care in places where medical expertise is hard to come by.

Five to ten times a day, Doctors Without Borders relay questions about tough cases from its physicians in Niger, South Sudan and elsewhere to its network of 280 experts around the world, and back again via the internet

Outside St. Louis, shifts of doctors and nurses work around the clock in Mercy Health system's new Virtual Care Center—a "hospital without beds" that provides remote support for intensive-care units, emergency rooms and other programs in 38 smaller hospitals from North Caroline to Oklahoma. Many of them don't have a physician on site 24/7.. (*Our hospital in Clearwater, Fl. Is linked to a remote ICU that covers a great deal of the Tampa Bay area.)*

In the TeleCU section, critical-care doctors sit at oversize video monitors that continually collect data on every far-flung ICU patient and can spot signs of imminent trouble. If a patient needs attention, Mercy physicians can zoom in via two-way cameras—close enough to read the tiny print on an IV bag..

In the past year, ICUs monitored by Mercy specialists have seen a 35% decrease in patients' average length of stay and 30% fewer deaths than anticipated. That translates to 1,000 people who were expected to die who got to go home instead.

This is not to say that telemedicine has found its way into all corners of medicine. A recent survey of 500 medical consumers found that 39% hadn't heard of telemedicine, and of those who haven't used it, 42% said they preferred in-person doctor-visits. In a poll of 1,500 family doctors only 15% had used it in their practices—but 90% said they would if it were appropriately reimbursed.

For all the rapid growth, significant questions and challenges remain. Rules defining and regulating telemedicine differ widely from state to state and are constantly evolving.

Some critics also question whether the quality of care is keeping up with the rapid expansion. And there's the question of what services physicians should be paid for: Insurance coverage varies from health plan to health plan, and a big federal plans covers only a narrow range of services.

Do patients trade quality for convenience?... The fastest-growing services in telemedicine connect patients with doctors they've never met for a one-

Continued on Page Two

Soon we'll need a doctor specialty for the communication systems & will it be "Dr. Robots?"

NEED CATEGORY I CME?

Go to www.mpmcme.org enter; go to "medical surgical archives" and a list will pop up...pick the lecture you want (includes mandatory ones) & when completed take the simple test and submit it to"Lee" for accreditation. When your medical license is up for renewal, notify Lee & she will submit the papers required. Tell her you affiliated with the hospital through MARCO and Dr. Warren Brown.
(Tnx to Morton Plant Hospital, Clearwater, Florida, an associate of the University. of South Florida medical school.)
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LATE BREAKING NEWS

The 2017 Annual MARCO meeting will be held at the Hilton Garden Inn in Schaumberg, Illinois close to O'Hare airport in Chicago on April 27 through April 30th. For reservations call Ellie Dailey at 224 520 6951. Plan for an educational meeting after the Friday AM meeting which begins at 8 a.m.

The article on page 2 concerning "Immunotherapy in-Oncology" is an eye-opener and may be heard in full by going to www.mpmcme.org and enter; go to "medical surgical archives" and a list will pop up...pick the lecture of Sept. 13, 2016 and follow the directions listed above. This is a confusing subject that has been simplified by this talented speaker.

WRITE TO US!
We welcome your comments. Mail to Marco, P.O. Box 127, Indian Rocks, FL, 33785. Email to warren.brown1924@gmail.com Letters may be edited for brevity & clarity.

MARCO NET SCHEDULE

DAY	EASTERN	FREQ.	NET CONTROLS
Any Day	On the Hour	14.342	Hailing Frequency
Sunday	10:30 a.m. Eastern	14.140	CW Net, Chip, N5RTF
Sunday	11 a.m. Eastern	14.342	Warren, KD4GUA

(Alternate ***confidential*** Grand Rounds frequency— on or about 14.344 or as announced on the air.)

MARCO'S CW NET IS NOW CALLED THE *"Bob Morgan Memorial Net"*
Sundays, 10:30 am, 14.140 MHz

MARCO Grand Rounds is held Sunday at 11 a.m. Eastern Time; 10 a.m. Central; 9 a.m. Mountain, and 8 a.m. Pacific Coast time on 14.342. You qualify for one hour Category II CME credit with your check-in.

time phone, video or email visits—on demand 24/7. Typically, these are for non-emergency issues such as colds, flu, earaches, and skin rashes, and they cost around $45, compared with about $100 at a doctor's office, $160 at an urgent-care clinic or $750+ at and E.R.

Many health plans and employers have rushed to offer these services and promote them as a convenient way for plan members to get medical care without leaving home. Nearly three-quarters of large employers will offer virtual doctor visits as a benefit to employees this year, up from 48% last year.

Web companies such as Teladoc, Doctor on Demand and American Well are expected to host some 1.2 million such virtual doctor visits this year, up 20% from last year.

But critics worry that such services may be sacrificing quality for convenience. Consulting a random doctor patients will never meet, they say further fragments the health-care system, and even minor issues such as upper respiratory infections can't be thoroughly evaluated by a doctor who can't listen to your heart, culture your throat or feel your swollen glands.

The AMA in June approved new ethical guidelines for telemedicine, calling for participating doctors to recognize the limitations of such services and ensure that they have sufficient information to make lineal recommendations.

CEO of Teladoc, says its doctors use more than 100 guidelines developed specifically for delivering care remotely, including a five-point scale for determining whether a sore throat is likely due to strep that warrants antibiotics. The CDC advises clinicians to prescribe antibiotics only for cases confirmed by a rapid test or throat culture.

Who pays for this services? While employers and health plans have been eager to cover virtual visits, insurers have been far less willing to pay. Some 32 states have passed "parity" laws requiring private insurers to reimburse doctors for services delivered remotely if the same service would be covered in person, though not necessarily at the same rate or frequency. Medicare lags further behind.

Currently, doctors must have a valid license in the state where the patient is located to provide medical care. To date, 17 states have joined a compact US medical license, but post fine-print disclaimers state that they are providing information and not medical advice.

Are such services "practicing medicine " without a license? The exact definition varies from state to state, and state medical boards generally don't investigate unless a patient files a formal complaint. Even then, boards have jurisdiction only over individual doctors licensed in their state,

Federal efforts to deal with the issue have made little progress...state medical boards, whose members have a strong interest in preserving the status quo. As a result, the product, the misnamed interstate Medical Licensure Compact, does not include provisions for license portability. Although 17 states have joined the compact it doesn't solve the problem at hand: the requirement that telemedicine providers be licensed in every state in which they practice. The compact simply protects the power of the state boards to shield physicians in their states from competition. It preserves the multiple fees physicians must pay to each state board. Most troubling, the compact has distracted attention from, and muted calls for, reforms that would realize the telemedicine's potential.

The federal government needs to turn its attention to a plan that can work: Redefining the location of the practice of medicine.

Using its power under the Commerce Clause of the Constitution, Congress could pass legislation to define where a physician practices medicine to the location of the physician rather than the location of the patient., as states currently do. Physicians would need only one license, that of their home state, and would work under its particular rules and regulations.

This would allow licensed doctors to treat patients in all 50 states. It would greatly expand access to quality medical care by freeing millions of patients to seek service from specialist around the country without the immense travel costs involved.

With one simple change that would not cost taxpayers a dime, Congress could create a national market for health care, and allow the telemedicine revolution to increase access to quality health care while lowering its cost. Not acting would deny American consumers a health-care windfall.

Telemedicine is also shaking up the traditional relationships between provider and payers and fueling the rise of medical "megabrands" whose experts are increasingly competing for patients in each other's backyards.

Insurers such as Anthem and UnitedHealth Group are offering their own direct-to-consumer virtual doctor-visit services, rather than simply paying for plan members to use those from web based vendors. Major health systems are making their physicians available for virtual follow-ups and chronic-disease management, as well as urgent-care visits to new and existing patients.

John Hopkins, Stanford, Harvard and other centers are all offering remote consultants. The Cleveland Clinic is working to create a "Cleveland Clinic in the Cloud" that would allow patients across the country to access them without going to Ohio.

(Information for the above was taken from the fine articles by Melinda Beck & Shirley Svorny that appeared in the Wall Street Journal .)

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IMMUNOTHERAPY IN ONCOLOGY

From lecture by Ben Yan, M.D., Morton Plant Hospital, Clearwater. Fl., 9/13/16

The new way—attacking cancers from the **Inside**...in the 1890s Dr. William Coley injected bacteria lysates into a sarcoma and the sarcoma disappeared. Then came BCG (1970s) which stimulated cytokines to attack prostate cancers; Interferon, monoclonal antibodies (1990s), the use of thalidomide in multiple myeloma and the proliferation of vaccines in the 2000s. **Healthy vs. Unhealthy cells! What we were doing was using "cytokines" to activate and deactivate anti-tumor response using BCG, interferon alpha and interleukin-2** *(in melanoma)*

In Russia a vaccine *(Sipolevel-T)* against prostate cancer has been introduced but costs $100,000/treatement **.**

NOW we have another breakthrough by activating T-cells using IL-2 (pilimumab) in melanoma with no serious side-effects and PD-1 inhibitors, a physiological brake against the body protecting its own cancer cells by turning off signals protecting those cells.

Newer monoclonal antibodies against PD-1 inhibitors Nivowmab, Pembrolizumab, atezolizumab turn-off signals protecting tumors with less side effects.

These drugs are being used against advanced melanomas and patients are now living longer especially when using combinations of CTLA4 and PD-1 inhibitors and now being used against non-small cell lung cancers. These are well tolerated but do cause some neutropenia and an auto-immune colitis.

Next we may be using these against all tumors and it may eliminate chemotherapy….but treatment will be progressive over a long time and cost in the millions of dollars. See directions, Page 1 for direct contact.

ANTICOAGULENTS

As presented on MARCO Grand Rounds, Aug. 28, 2016.

This guide is intended as a quick reference to highlight significant interactions between warfarin and commonly prescribed medicines and a list of the vitamin K content of some foods.

Always tell your anticoagulant clinic of any changes in medication whether prescribed or over-the-counter, as it may be necessary to alter your dose of warfarin,, particularly when starting or stopping meds. Always tell your pharmacist that you are on anticoagulation therapy before buying over-the-counter medicines. Tell your clinic about significant changes in diet.

Changes in your condition, regardless of whether you need to take extra medication, can also affect your INR levels. For example, conditions such as heart failure, trauma, infection, sickness and diarrhea will affect warfarin control. So as much attention needs to be paid to illness as is paid to new meds.

If taking warfarin take the prescribed dose at the same time each day. Have your blood tested regularly for its clotting time. Talk to your doctor if you are going to start taking any new prescribed drug or OTC medicine and/or natural health products because your dose of warfarin may have to be adjusted. If you are already taking a drug and/or natural health products and warfarin, do not change your routine unless you have discussed it with your doctor. If you have any unusual bruising contact or bleeding see your doctor right away.

Mary Favaro AE4BX notes: Several years ago while volunteering at the free clinic, we had an uninsured patient referred for Coumadin management. She had been discharged from the hospital after a Hx of 2 pulmonary emboli and multiple episodes of thrombophlebitis . I had her on 10 mg and the INR never budged, then up to 15, 20 mg. I accused her of not taking the medicine so she brought her daughter who swore she was taking it daily. She was not on aspirin, ibuprofen etc and not eating any greens. Then I thought the drug was no good. I called the drug store and demanded she be given the brand name Coumadin not any generic pill. Did it, INR never budged again. Then after 20 mg of the brand name, I got the advice of an onco/hematologist and he took over. He got her up to 60 mg a day before he got the INR over 2. She had some sort of a natural resistance to the med., was a super-clotter based on her history—he kept her as a patient and I lost tract...but an interesting an unusual case.

Bruce Small KM2L wrote: I saw a gentleman because it took a 60 mg daily dose of Coumadin to get him into the therapeutic range. The question was simply, "Can this possibly be right? As you discovered, rare folks require very large doses of the drug before they will respond.

PEARLS

WARFARIN...according to Mary AE4BX, the name comes from "Wisconsin Alumni Reserach **F**oundation, and is the active ingredient in "Coumadin." When using Warfarin (or Coumadin) one has to get variable bi-weekly INR (International Normalized Ratio) blood tests that should test between 2 and 3. (anything lower is "normal").

When using Warfarin one must watch the diet as leafy vegetables containing Folic Acid can act to normalize the effects of warfarin. *In other words the more leafy vegetables one eats the less effective the "blood-thinning" ability of Warfarin and the more fluctuations in the INR readings.*

Best to stay away from spinach, kale, Brussels sprouts, parsley, chard, green tea, cranberry juice and alcohol., AND, be consistent in your diet

Warfarin may cause birth defects in pregnant women. Dose varies with the INR, usually running from 5-10 mg p.o. daily

XARELTO... Different from warfariin in that a bi-weekly blood test is not required and the patient can eat unlimited leafy vegetables. Dose is usually 15 mg bid for 21 days, then 20 mg p.o. daily in the evening. If surgery is contemplated, discontinue Xarelto 48 hours prior to the surgery and refrain from spinal tap and spinal anesthesia. No known dietary retractions.

If you are taking Xarelto do not take: Aspirin, NSAIDS, Heparin, Plavix, SSRIs or SSRIi, Nizorel, Sporonox, Tegretol, Dilantin

ELIQUIS... Do not use if inserted heart valves. Stay away from other bleeding drugs mentioned above. No way to reverse action of drug. which lasts 24 hours. Dose: 2.5-5-10 mg bid but not in pregnancy (?). Comes in 2.5 and 5 mg tablets. Avoid spinal taps.

WHICH DRUG IS BEST? WE DON'T KNOW. BEST TO USE YOUR OWN JUDGEMENT.

NOTES FROM YOUR NEW PRESIDENT

By Richard Lochner, M.D., K9CIV President of ,MARCO

In Indiana we are in the midst of the dog days of summer. It is hot and we need rain but the corn has grown very fast this year. It was knee high in some places long before the 4th of July. I wrote this a month ago. Now it is cooler and we have had almost too much rain. In the northeast Hermane is raising havoc.

And we are in the midst of a very contentious presidential election. Whether you are a Democrat or a Republican the message is clear that the Affordable Care Act will be changed in the new administration.

But how? I personally would like to see better financial access. This is also a problem of who foots the bill. Delivery of good health care must include the less fortunate.

State boundaries: We may have differences of opinions about free trade but allowing plans that cross state lines would seem to allow more competition and lower prices. This could enlarge the pools. Unfortunately at this time we see more big companies withdrawing from the ACA offerings.

Indiana has been lauded/denigrated for its HIP 2.0. Seems to work pretty good but under that is a plan called MDwise. It is extremely stiff in its requirements. Just recently I needed a peer to peer review but the person I was talking to didn't feel one was needed. I asked her if she was a physician. Boy, did she get angry. She told me I didn't need a physician. Finally I got an authorization from her for the MRI of the shoulder. Delayed over a month The patient's rotator cuff was in shreds but she knew better. The peer to peer's I have been to have gone very well and colleague to colleague was a fine experience. The bean pushers are not interested in our patients. But I think we want good care for our patients.

We are on the front line trying to serve our patients in the best way possible. Letting our legislators know what we think might work — it is why we elected them.

Just a couple of thoughts. This is our business/calling, what can we do to make it better. Our experience in serving patients is valuable.

April 2017: Hilton Gardens Inn, Schaumberg, IL. I have confirmed reservations for us at this beautiful setting on the outer rim of Chicago. Then some optional activities until dinner on Saturday.

Our annual meeting will take place at 8:00 A.M. on the 28th. Following our meeting at 10:00AM I have lined up an ex-DEA agent to share wih us the law enforcement side of our opioid and controlled substance problems I have been in groups with him on a number of occasions. He has worked all over the world and brings a unique perspective to this dilemma. His office is in Aurora, IL., Drug Education Resources Group. Everyone is invited to this presentation. YL's, XYL's, OM's, patients, etc. This will involve a presentation with a time for questions.

Until next time,

73

Rich, K9CIV.

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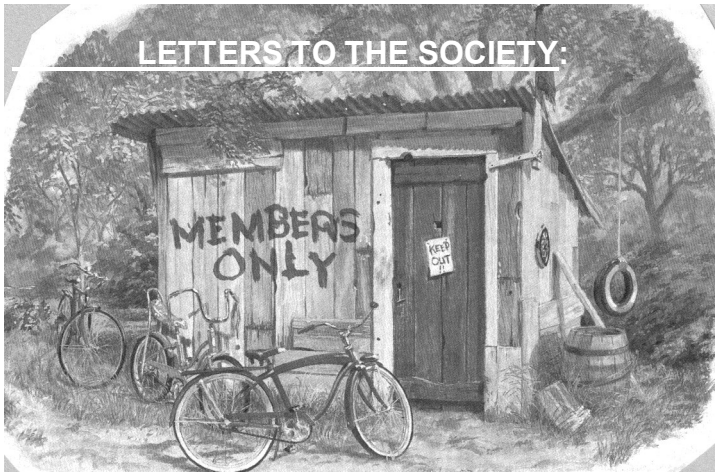
ODDS & ENDS

Static electricity was the first kind of electricity to be discovered. The conservation of charge states that electric charge is neither created nor destroyed. The total amount of electric charge in the universe remains constant. Electromagnetism is the relationship between electricity and magnetism. Electric currents can produce magnetic fields and magnetic fields can produce electric currents.

The minister had all his teeth pulled and was waiting for new dentures. The first Sunday, he preached for 10 minutes. The second Sunday he preached only 20 minutes. On the third Sunday he preached for 1 hour 25 minutes. When asked why, he responded. "The first Sunday my gums were so sore it hurt to talk. The second Sunday my dentures hurt. The third Sunday, I accidentally grabbed my wife's dentures and I couldn't stop talking. "



LETTERS TO THE SOCIETY:

Kudos from (no luck this issue!)

The big news is the Hara Arena Hamvention is closing down after 60 years and is relocating at the Greene County Fairgrounds in Xenia, Ohio, located 30 miles SE of Dayton. This means we will have to get a hotel in Dayton and bus to the new site.

From **Malin Dollinger KO6MD, Rancho Palos Verdes, CA...**Xenia has about 25,000 people, founded in 1803. Lincoln made a brief stop there in his train trip for election. It's tornado country; there is a tornado memorial plaque for the 1974 Tornado. The closest major airport is still Dayton, about 30 miles away; Cincinnati and Port Columbus major airports are 59 miles away. It's the County Seat.. AND. Xenia is the only city over 5,000 in the US that starts with the letter "X".

From **Kathy Savage KB1LPW…**"I enjoyed the article very much *(the August Edition Aether, "Osteoporosis)* was especially interested in the fact that Fosamax that is ordered all the time is not as effective unless there has been a spiral fracture." I am looking for some of the references from the article especially information on the treatment options with and mostly without fractures." **Reply: "**Information for the article on osteoporosis was a consensus of information obtained from the internet and from personal experience in the field."

Wayne D. Rosenfield, K1WDR, Parrish, FL when asked on ListServe "what comes after 75?" answers; "I think the answer to that question depends on whether you are referring to age or speed limit." The answer, of course, was simply "76" (*that's the spirit!)*

John Bennet DDS, wd8nmv@arrl.net, Cincinnati and **Jeff Wolf** are the only two members wishing to have their *Aether* Marco NL sent electronically (that have notified us). Anybody else?

David Justis KNOS, Wicomico, VA notes that multiple genes can now be targeted by CRISPR. Despite CRISPR/Cas9's growing popularity as a genome editing tool, a number of challenges, including off-target effects and an inability to easily target multiple genes, limit the platform's biomedical applications. For the most part, this powerful tool can only edit one gene at a time, limiting its potential as a therapeutic option for diseases involving multiple genes. A new platform, developed by Yale & Chinese scientists fuses together a one-stop procedure for building constructs to target multiple genes with a chemically inducible form of Cas9 for redoing off-target effects. The potential of what can be done with this gene-targeting tool is huge.

MARCO AD IN QST MAGAZINE

Club/Hamfests/Nets

FRIEND OF BILL W?? 12:30 pm Eastern: HAAM Net Sat 14.290, Sun 14.340 and Mon-Fri 14.316 http://www.qsl.net/haam/

MARCO Medical Amateur Radio Council. Professionals enjoying ham radio. Free newsletter & info. WB2MXJ@arrl.net

NEWSENSE...Tantalizing News!

Originated by Columnist Walter Winchell

EDITOR'S NOTE: Walter Winchell began broadcasting in 1933 to an audience of 25 million people. The Winchell style was unmistakable. He talked rapidly at 197 words per minute..the voice was high-pitched and not pleasant to the ear; but it was distinctive. The staccato quality made every item compelling. He claimed he talked so fast because if he talked more slowly people would find out what he was saying...he began his radio program with a series of dots and dashes operating the key himself. Telegraphers throughout the country complained that what Winchell tapped out made no sense. He realized he hadn't the faintest knowledge of Morse code but he refused to have an experienced telegrapher provide the sound effects for him. He wrote like a man honking in a traffic jam.

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The two equinox periods (*March/April and September/ October***)** are typically the best periods to work DX. Granted, the higher bands might not be as good as they were a year or two ago (*we still have a few years to reach the bottom of sunspot cycle 24)* but conditions on 20, 17 and sometimes 15 meters during the day, and 30, 40 and 80, and even 160 in the evenings should be fairly good in October.

Prostate cancer death risk is low...a new study could reassure men with early prostate cancer. Whether they opt for radiation, surgery or no treatment at all, their risk of dying of the disease in 10 years is very low—less than 1%. Undergoing surgery or radiation lowered the risk the cancer would spread, by more than 50% compared with simple monitoring it, the study found, but that didn't result in a significantly higher risk of death over 10 years because prostate cancers usually grow slowly. It may be that at 15 or 20 years there is a difference in survival.

One hour with patients means two hours on electronic health records... Physicians are spending twice as much time on EHRs as they are face to face with patients, according to a new study by the AMA. Researchers observed 57 physicians in four specialties and found that for every hour of direct clinical face time with patients nearly 2 additional hours is spent on EHRs and desk work within the clinic day.

What is "Blockchain?" Blockchain.info is a bitcoin wallet and block explorer service. Launched in August 2011, the service provides data on recent transactions, mined blocks in the bitcoin blockchain, charts on the bitcoin economy, and statistics and resources for developers. What is bitcoin? A coinless digital currency system...try *blockchain.infor* for details. There are already over 3 million bitcoin wallets!.

A letter on "Elmering" from Bob WD8NVN…. Since I got licensed in 1977, I have learned and paid attention to how the general Amateur Radio population engages themselves in all aspects of our hobby. Some new licensees promptly drop out within a year. However, the rest find a niche in Amateur Radio and develop into good citizens who are active in local clubs, advancing the technical art, and are involved in operating excellence like DXing, contesting, special events, ARES, and the NTS. The hobby needs people who can focus on being the best at whatever aspect a person finds most interest in . Monitoring, or "Elmering," fosters achievement and helps new hams determine their particular talents to explore. I think ARRL (*and Marco*) has facilitated excellence in Amateur Radio in many regards, and will continue this tradition into the next century. I am proud to be a member.

Classified: Our Past President Jeff Wolf K6JW, has a Transceiver for Sale…"I have a like-new Kenwood TS-590S for sale. It's got the VGS-1 audio recorder installed and is updated with Kenwood's current firmware. Original double carton, manual, mic, and power cable included. I'm asking $900 for it plus any shipping charges. I'm selling it because (*long story*) I've got two of them and I'm keeping the other one…..if you're interested, send me an e-mail at k6jw@arrl.net.

HOW TO PRESCRIBE FEWER UNNECESSARY ANTIBIOTICS

The CDC has campaigned to reduce inappropriate antibiotic prescribing for more than 20 years, yet antibiotic prescriptions for acute respiratory tract infections, which generally do not require antibiotic treatment, have decreased only modestly for children and not at all for adults.

Antibiotic-resistant infections account for an estimated 2 million illnesses and 23,00 deaths annually in the US. Antibiotic use is a major driver of resistance and most antibiotics are used in outpatient settings.

Being a good antibiotic steward means protecting patients from antibiotic resistance and adverse events by prescribing antibiotics only when needed, and prescribing the right drug at the right dosage for the right duration. Antibiotic use in childhood has been linked to increased risk of autoimmune diseases.

Why do doctors prescribe antibiotics inappropriately? The usual answer is, "If I don't they will go somewhere else where they will!" Clinicians cite patient pressure and customer satisfaction as major reasons for inappropriate prescriptions. Doctors are more likely to prescribe them if they perceive that the parent wants them to, but studies have shown that they do not accurately predict parental expectations. Studies suggest that parents are often seeking reassurance that their child's condition is not serious and want to know how to help relieve their child's symptoms, but the clinician perceives them as expecting antibiotics based on things they say and their actions. Patients are less likely to expect antibiotics if they are told they have a "chest cold" rather than "bronchitis."

The new strategy should be "This is a nasty cold, so antibiotics won't make you better faster." OR, "The strep test is negative, meaning your sore throat is caused by a virus and antibiotics won't help virus infections. Taking ibuprofen and drinking plenty of fluids will help you feel better and honey can actually soothe your child's cough and help her sleep better."

If this is not appropriate, try "If you are not better in three or four days, call or come back and we can reassess the need for antibiotics then." OR, "If your child is still sick in a week or if he develops a fever, come back and see me."

Try giving a delayed antibiotic prescription, "Your child has an ear infection that will likely clear up on its own. If the ear still hurts in two days or gets worse, call or come back and we will recheck the ears." OR, "Your child has an ear infection that should likely clear up on its own.... just in case it doesn't, here is an antibiotic prescription. Fill this in two days if the ear still hurts, or earlier if your child gets worse. Feel free to call me with any questions. Note: When using delayed prescriptions, write an expiration date on the Rx, 5 to 10 days in the future so the Rx can be filled only during the watchful waiting period and not a few months later…..**GOOD LUCK!**.

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In answer to the question: "What comes after 75?" Not a speeding ticked, NOR a stroke—but "76" (*The Spirit of 76!)*

URINARY TRACT INFECTIONS

As presented on MARCO Grand Rounds, Aug. 21, 2014

Asymptomatic bacteriauria is common and is frequently over-treated. The CDC reports that **39%** of urinary tract infections treated in the E.R. do NOT require antibiotics. (***But look out if you don't treat them!)*** The 10 myths outlined below address the common fallacies as they pertain to UTI.

Myth 1: The urine is cloudy and smells bad. Urine color and clarity or odor should not be used alone to diagnose or start antibiotic therapy in any patient. Foul-smelling urine is an unreliable indicator of infection in catheterized patients, and is usually dependent on patient's hydration status and concentration of urea in the urine.

Myth 2: The urine has bacteria present. Without symptoms this is NOT an indication of a UTI. **UTI is** NOT a lab defined diagnosis—it is a symptom defined diagnosis. Colony counts should not be used to guide therapy.

Myth 3: The patient's urine has >5 squamous epithelial cells per low-power field and the culture is positive. A good specimen has fewer than 5 epithelial cells per low-power field. Contaminated specimens should be considered for recollection or straight catheterization.

Myth 4: The urine has positive leukocyte esterase. My patient should have a urine culture performed, has a UTI, and needs antibiotics. A urinalysis with +leukocyte esterase should not be used alone to support a diagnosis of UTI or start antimicrobial therapy. Get a culture and sensitivity study (C&S).

A dipstick leukocyte esterase test has high sensitivity and specificity for the presence of pyuria; howeer, a + leukocyte esterase alone is NOT recommended for diagnosis of UTI. Symptoms are usually required ; pyuria or bacteriuria is not an indication for antimicrobial Rx and can result in an over treatment rate of up to 47%. On rare occasions, a neg. leukocyte esterase in the presence of UTI symptoms may still prompt a urine culture if clinically suspected. This situation should prompt a search for urethritis, vaginitis or sexually transmitted infection (*STD*).

Myth 5: My patient has pyuria, they must have a UTI. A urine with quantitative urine WBC counts should not be used alone to support a diagnosis of UTI or start antimicrobial therapy. In neuutropenic patients, the WBC count may be artificially low. If urine symptoms are present a C & S *(culture & sensitivity studies)* should be ordered. Borderline WBC counts my reflect the patient's state of hydration. Noninfectious conditions such as renal failure, STDs or noninfectious cystitis from a catheter may result in pyuria..

Myth 6: The urine has nitrates present. Urine nitrates should not be used alone to diagnose cystitis requiring antibiotics.

Myth 7: All findings of bacteria in a catheterized urine should be diagnosed as a UTI. Virtually 100% with an indwelling Foley are colonized within 2 weeks with 2-5 organisms. Treat only in the presence of symptoms of infection (fever, leukocytosis, pain, etc.) Use of antibiotics for short term therapy is permitted.

Myth 8: Patients with bacteriuria will progress to a UTI and should therefore be treated. Bacteriuria does NOT establish a diagnosis of UTI Antibacterial therapy should NOT be initiated in asymptomatic patients.

Myth 9: Falls and altered mental status changes in the elderly are usually caused by UTI. These are caused by many factors.

Myth 10: The presence of Yeast or Candia in the urine especially in those with indwelling catheters, indicates a candida UTI and needs to be treated. Treatment of Candida in the urine should occur only in rare situations, such as clear signs and symptoms of infection and no alternative source of infection.

KEEP MARCO PERKING !

Pass this copy to a friend OR send us a $15 membership

STEM-CELL THERAPY

In Sept. 2016 the U.S. Food & Drug Administration will consider if clinics offering stem-cell treatments should be more closely regulated. Stem-cell treatments aren't approved by the FDA and not long ago, Americans had to travel to Mexico, China or elsewhere to received them. Now with the regulatory environment murky, clinics offering them are spreading rapidly across the US.

A recent report in the Journal "Cell Stem" counted 570 clinics advertising stem-cell therapies directly to consumers. Many claim to treat a long list of disorders, from arthritis to Alzheimer's disease, even though the stem-cell treatment for many of the conditions hasn't yet been tested on humans. Treatment typically costs thousands of dollars.

Critics, including many top stem-cells scientists say they are peddling 21st century snake oil and want the FDA to crack down.

Clinic operators say they don't need FDA approval because they are practicing medicine, not creating new drugs. Some patients say they have been helped and that the government shouldn't regulate what they do with their own cells.

Stem cells, found in both embryos and adult tissues, offer enormous promise to scientists because they have the potential to develop into many different kinds of cells or serve as the body's own repair service..

Research is exploding into ways stem cells might be harnessed to cure diseases, mend damaged tissue, even grow replacement organs. Already research is under way to reduce inflammation, repair bone and cartilage and create artificial hip tissues; reprogram adult stem cells from skin to become functioning beta cells in diabetics; to treat Parkinson's disease by replacing lost dopamine-producing cells; to treat macular degeneration and in testing whether bone marrow stem cells infused into coronary arterial can repair damage from heart attacks. .

But most such research is still in the early stages. To date, the FDA has approved only a handful of stem-cell treatments, mainly for blood diseases such as leukemia. Scientist say much more work needs to be done to understand how stem cells work and what uses are safe and effective.

"We need to make sure that these technologies are reliable and reproducible, time and time again, before you put them into patients," says the director of the Wake Forest Institute of Regenerative Medicine, which has 450 researchers working to create new tissues from stem cells.

"*This is the future of health care, using your own stem cells to fix problems, not drugs,"* says the chairwoman of the National Stem Cell Foundation. "*But clinics that make over-the-top claims that a single stem-cell therapy will cure ALS or Parkinson's or other diseases raise huge safety and ethical concerns. It gives the whole field a black eye*."

Some clinic operators say they are offering "*patient –funded research*" and that the charges are modest if the treatments restore sight or forestall a knee replacement.

A retinal surgeon in Margate, FL., has treated about 570 patients with retinal and optic nerve diseases with stem cells taken from patients' bone marrow as part of a study, and says that about 60% have had meaningful improvement. Patients pay $19,000 to $21,000 to receive the injections.

Many clinics use so-called adult mesenchymal stem cells derived from fat. In a mini liposuction procedure, doctors withdraw a syringe full of fat from the patient's abdomen under local anesthesia, separate out the stem cells and inject them back into the patient, where they naturally seek out and find damaged tissue, proponents say.

Clinic operators say they don't need FDA approval because under the agency's draft guidelines, stem cells aren't considered drugs, if they are the recipient's own cells, they are not significantly altered and if they perform their original role in the target location.

Some scientists dispute that reasoning. "Fat stem cells come from fat, which has almost no role beyond cushioning," one noted.

A Beverly Hills cosmetic surgeon who co-founded a network of stem-cell clinics, says "*fundamentally , all we are doing is a simple, surgical procedure. This is not witch-doctor stuff. We are repairing cell damage with people's own stem cells*." He says the member clinics in 25 states have treated about 5,000 patients to date, with no significant adverse events.

One patient who developed multiple sclerosis in 1995 and was confined to a wheelchair by 2011 stated, her symptoms started to improve almost immediately after receiving a high-dose stem cell treatment at a Houston clinic in 2012. When the FDA blocked access to that form of therapy,

FOOD FOR THOUGHT:
Your mind is a garden; Your thoughts are your seeds.
You can grow flowers or you can grow weeds.

woman went to Cancun, Mexico, for follow-ups. After a total of five treatments for $90,000, she says she has far less pain, can exercise and walk short distances with the help of a walker.

She stated, "*Patients will never get these treatments if they have to go the traditional double-blind placebo-controlled trial route. That takes 10 years and $1 billion,"* she says.

A public hearing is scheduled for April 13 in Silver Spring, Maryland .

While there haven't been many reports of serious complications from stem cell therapy, two Florida patients died in recent years after receiving stem cell injections; a California woman developed painful bone fragments in her eyelids after a stem cell facelift, and anther patient developed a mucous-secreting growth of nasal tissue in her spine after undergoing stem cell treatment in an attempt to cure her paralysis.

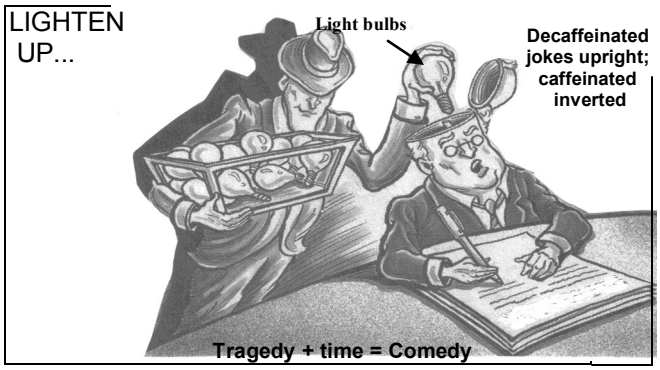
The Beverly Hills cosmetic surgeon has been providing stem-cell treatments since 2010 and confounded a network of clinics in 2012. He uses liposuction to extract fat from the patient, then spins it in a centrifuge with various enzymes for about a half-hour to separate host cells, including stem cells. He say he uses lab tests to verify that stem cells are present and charges $8,900 per injection.. He says the injections have been most successful for orthopedic issues, arthritis and joint pain.

Stem cell face lifts are popular, too. Stem cells or stem cell extracts are injected into the skin along with fat….surgeons task force convened in 2012 and found the procedures offered no improvement over standard facelifts.

Stem cell lotions , some selling for hundreds of dollars per ounce, claim to reverse aging and erase wrinkles, though experts say there is no reason to think stem sells or their extracts would remain active in a lotion—if indeed they were ever added to the jar. "*It could be bacon grease!*" The stem cell facials run about $500 and have quite a following among celebrities. These treatments mainly use plant stem cells applied topically and are hardly likely to regenerate human skin.

(Information for above was taken from the fine article by Melinda Beck which appeared in the Aug. 30, 2016 edition of the Wall Street Journal & the internet.)

LIGHTEN UP...



The British way... During the medical examination of a female patient, the British doctor says, "*Your heart, lungs, pulse and blood pressure are all fine. Now let me see the part that gets you ladies into all kinds of trouble."* The lady starts taking off her undies, but is interrupted by the doctor. "*No! No!....Just stick out your tongue!"*

****

The Red Cross just knocked on my door and asked if we could contribute towards the floods in Pakistan. I said, "*We'd love to, but our garden hose only reaches the driveway."*

****

Went to our local bar with my wife last night. Locals started shouting "pedophile!" and other names at me, just because my wife is 24 and I'm 50. It completely spoiled our 10th anniversary**.**

Sir William Golding may have been an "oldie," but he managed to condense a life time of experience with women into one brilliant summary statement. "I think women are foolish to pretend they are equal to men, they are far superior and always have been. Whatever you give a woman, she will make it greater. If you giver her sperm, she'll give you a baby. If you give her a house, she'll give you a home. If you give her groceries, she'll give you a meal. If you give her a smile, she'll give you her heart. She multiplies and enlarges what is given to her. So, if you giver her any sludge, be prepared to receive a ton back!"

****

A man come home to his wife after golfing. The wife asks, "Honey how come you never play with Bob anymore? The man replies, "*Would you want to play with a man who cheats all the time, who lost his ball then pulls one out of his pocket saying he found it; a man who really got a 7 but marks down a 5; a man who takes 3 foot gimme's."* The wife says, "No, I wouldn't." the man says, "*Neither would Bob!"*

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HOT ONES…on retirement, "*Goodby tension, Hello pension."* **Always a good one...***Live each day like it's your last, then one day you'll get it right!"* **On your birthday...**Aging seems to be the only way to live to a longer life!" **On your friends passing…***"I'd better go to his funeral or he won't come to mine!"*

The boy on the farm….A farmer drove to a neighbor's farmhouse and knocked...a boy about 7 answered the door. "Is your father at home?" asked the farmer. "No, they went to town." "How about your brother Howard? Is he here?" "No, he went with Mom and Dad." The farmer shifted from one foot to the other mumbling, when the young boy says, "I know where all the tools are if you want to borrow one." "Well," said the farmer uncomfortably, "No, I really want to talk to your Dad about your brother Howard getting my daughter Suzy pregnant." The boy thought for a moment, then says, "You'll have to talk to my Dad about that. I know he charges $500 for the bulls and $150 for the pigs, but I have no idea how much he charges for Howard."

****

A blonde has sharp pains in her side, so she goes to the hospital. The doctor examines her and says, "*You have acute appendicitis."* The blonde says, "That's sweet, doc, but I came here to get medical help."

A man goes to a $10 lady of the street and contracts crabs. When he goes back to complain, the lady says, *"What did yo expect for $10— LOBSTERS?"*

MARCO OFFICERS, 2016-2017

President: Richard Lochner, M.D. K9CIV
1615 N. U.S. Hwy 35, Knox, IN 46534
Phone 574 772 4115; email: drlochner@gmail.com

President-Elect: Jay Garlitz, D.M.D., AA4FL
P.O. Box 10, Hawthorne, FL., 32640
Phone 352 481 2677; email: jgarlitz@ufl.edu

Secretary: Joseph Breault, M.D., WB2MXJ
1615 Brockenbraugh St., Metaire, LA., 70005
Phone: 504 259 1191; email: wb2mxj@arrl.net

Treasurer: Bobbie Williams, W1BEW
2703 Chantay Dr., Maryville, TN., 37803
Phone: 865 983 0055; bobbie@usit.net
E-mail: BruceSmall73@gmail.com

Web Master: Dave Lieberman, KT8E
4424 Technology Dr.
Fremont, CA 94538,
E-mail: Dlieberman@computer-methods.com

Radio-Internet Coordinator:
T. "Chip" Keister, M.D., N5RTF
1000 Jefferson Ave.,
New Orleans, LA. 70115, phone: 504 899 3486
E-mail: tkeister@bellsouth.net

MediShare Director:
Arnold Kalan, M.D., WB6OJB
16690 Charmel Lane,
Pacific Palisades, CA 90272,
E-mail: wb6ojb@yahoo.com
Phone: 310 459 2495

Newsletter Office:
Warren J. Brown, M.D., KD4GUA
P.O. Box 127, Phone 727 542 4158 (cell) 727 595 2773 (home)
Indian Rocks Beach, FL., 33785
E-mail: warren.brown1924@gmail.com

****

REGIONAL DIRECTORS:

Robert A. Nevins, M.D., KF1J (1st) robert.nevins@gmail.com
Phone: 203 259 8923.
Bruce Small, M.D.,KM2L (2nd), Phone 716 713 5597 cell
BruceSmall73@gmail.com
Keith Adams, M.D., N3IM (3rd) docadams@hughes.net
Phone: 570 295 0629 cell; 570 748 5118 home
Mary Favaro, M.D., AE4BX, (4th) , Phone: 843 267 6879
Email: maryfav@aol.com
Tom Reilly, M.D. W3GAT (5th), w3gat@nwlagardner.org.
Phone: 318 222 8187.
Paul Lukas N6DMV (6th), dmvpalko@yahoo.com; 310 370 9914
Albert Breland, M.D., KA7LOT (7th), Phone: 858 793 6887
Roger M. Higley, D.D.S., W8CRK(8) rhigley599@aolcom
Phones: 513 451 1096, 513 481 5885
Bill T. Hargadon, WA9HIR (9th), Phone: 708 341 2338
Frederic M. Simowitz, M.D., K0FS (0) Fredsimo@aolcom,
Phone:314 725 5112

DIRECTORS AT LARGE:

Harry Przekop, PA-C WB9EDP, hprzekop@aol.com; 312 829 8201
Arnold Kalan, M.D., WB6OJB wb6ojb@yahoo.com
Linda Krasowski, R.N.,KE5BQK. bkrasowski@elp.rr, 915 857 5933
Danny Centers, W4DAN
Jeff Wolf, M.D., K6JW, k6jw@arrl.net, 310 373 5970

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Little Larry, skipped kindergarten class to attend a horse auction with his father. He watched as his father moved from horse to horse, running his hands up and down the horse's legs and rump, and chest. After a few minutes, Larry asked, "*Dad, why are you doing that?"* His father replied, "Because when I'm buying horses, I have to make sure that they are healthy and in good shape before I buy." Larry, looking worried, said, "*Dad, I think the UPS guy wants to buy Mom*…"

MEMORIES OF YEARS AGO IN MARCO

Our History Book

Fifteen years ago in Marco

October 2001...Gene Hoenig N3HG just bought a new GAP Titan vertical and is having a "brawl" putting it together. **Secretary Robin Staebler (*new call sign WE1MD*)** is recovering from a truck accident and should be well enough to return as ship's doctor on the Hawaiian run. **Keith Adams N3IM** has changed jobs from family doctor to E.R. physician and our treasurer **Lou Widerhold WA1HGE** is updating his private island off the Maine coast.

The Marco NL featured "***Thunderstorms & Lightning"*** as its main theme. Pearl of the issue was the interactions of drugs with Statins...this included the antifungals Sporanox and Ketakonazole (Nizoril), and Finnish researchers had found an increase in statin levels with grapefruit.

Ten years ago in Marco

October 2006...President Arnold Kalan WB6OJB informed the membership that the 2007 Annual meeting would be held in Santa Monica at the Doubletree Guest Suites which is located 5 blocks from the beach.

The MediShare Net has moved to Tuesday night at 9:30 pm Eastern at Echolink K3YGG-R node 247014. This is a NIH repeater in Bethesda, Maryland. Net control is Bill N5QF. It is working out fine.

The Marco NL featured "***The Difference between Herpes 1 & 2."*** It stated the incidence of Herpes 2 is down by 19%. It also carried a bio on the late **Robin Staebler, M.D., WF1R** . He was a driving force in Marco suggesting to the membership, upon the death of our late President Bob Currier WB5D, to "*keep this thing going"* **Jeff Wolf K6JW** called Robin "*a gentleman, one with clear opinions, always sharp, always with a sense of humor, honest and the user of more damned e-mail addressees than anyone else I've ever met.* **Linda Krasowski KE5BQK and hubby Bernie KQ5QHCV** visited Robin's widow in August and aid, "Everyone in Belfast Maine was saddened by his passing."

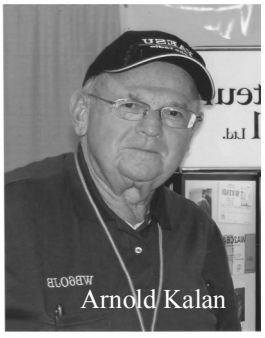
Five years ago in Marco

October 2011...Marco NL reported we had members in 42 states & 7 countries. Only Wyoming, Idaho, North and South Dakota, Montana, Vermont, Maine, Delaware and Kansas were missing. California had the most members (19) followed by New York (16), Ohio (16) and Florida (15)

We noted with sadness the passing of Alfred Greenwald WA2CBA on August 24th. He was an enthusiastic ham and Marco treasurer for many years. He didn't like being called "Al," it always had to be "Albert."

A question to Marco from a 15 year old boy read: "*My father is bald, will I also become bald?"* The answer: If your mother's father has normal hair you cannot inherit baldness from your father. If your mother's father is bald you have a 50% chance of becoming bald. Women rarely have this problem because the trait is carried on the X chromosome of which she has two (the male is Xy) and even if they have the baldness gene on one X they usually have the dominant non—bald gene on the other. Hemophilia and color-blindness follow similar patterns.

Smitty Smithwick writing in "***Smitty's Corner"*** states: People who suffered cardiac arrest and received chest compressions from bystanders had higher survival rates than those given standard resuscitation that included mouth to mouth breathing. This substantiates a previous finding. If a defibrillator is not available, bystanders should perform chest compressions until paramedics arrive.



MEDISHARE REPORT

Arnold Kalan WB6OJB Director

Prior to my leaving for my Dx to Mozambique we received two donations for $100 from Carl Werntz and myself. Keep in mind there are those needy who need our help.

CME RANKINGS, Sept. 11, 2016

BOB CURRIER MARCO GRAND ROUNDS OF THE AIR. (Corrections to Marco)

14.342, Sundays, 11 am Eastern, One Hour Cat. II CME

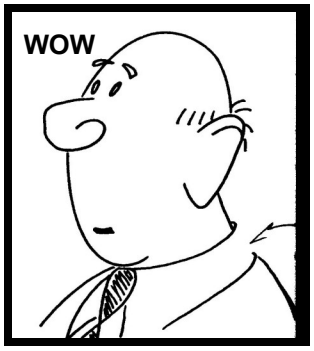
CALL	HRS.	NAME	QTH
KD4GUA	33	Warren	Largo, FL
KC9CS	31	Bil	Largo, FL
N9RIV	31	Bill	Danville, IL
WB6OJB	30	Arnold	Pac.Pal. CA
NU4DO	30	Norm	Largo, FL
KNOS	29	Dave	Virginia
N2JBA	29	Ed	Amenia, NY
N4TSC	28	Jerry	Boca Raton, FL
N6DMV	28	Paul	Torrance, CA
N5RTF	27	Chip	New Orleans, LA
K9CIV	27	Rich	Knox, IN.
WB1FFi	27	Barry	Syracuse, NY
KK1Y	26	Art	Seminole, FL
KM2L	26	Bruce	Clarence, NY
W1BEW	25	Bobbie	Tennessee
N5AN	25	Bud	Lafayette, LA
W8LJZ	24	Jim	Detroit, MI
W2MXJ	24	Joe	New Orleans, LA
N2OJD	23	Mark	Sydney, Ohio
W6NYJ	23	Art	Beverly Hills, CA
KD5QHV	22	Bernie	El Paso, TX
K6JW	22	Jeff	Palos Verdes, CA
K9YZM	21	Mike	Crystal Lake, IL
W3PAT	21	Marvin	Prosperity, SC
K3IK	21	Ian	Shavertown, PA.
KE5SZA	21	John	Marietta, OK
KE8GA	21	George	N. Carolina
N4MKT	20	Larry	The Villages, FL
W4DAN	20	Danny	Cleveland, TN
WB9EDP	20	Harry	Illinois
WA1EXE	19	Mark	Cape Cod, Mass.
A1iN	19	Gonzo	Maryland
WA1HGY	19	Ted	Massachusetts
N0ARN	18	Carl	Colorado
WA3QWA	17	Mark	Chesapeake, VA
N4DOV	17	David	Ft. Lauderdale, FL.
N8CL	15	Chuck	Albany, NY
W1WDR	14	Wayne	Parrish, FL
N7MLN	13	Mort	Tucson, AZ
KB5BQK	12	Linda	El Paso, TX
N9GOC	12	Pat	Champagne, IL
W0UNZ	10	Paul	Warsaw, MO
K0FS	10	Fred	St. Louis, MO
WBEYE	8	Darryl	New Phila. Ohio
AE4BX	8	Mary	Myrtle Beach, SC
N9HIR	8	Bill	Berwyn, IL
W0RPH	8	Tom	Colorado
KAJWA	6	Jim	W. Virginia
KD8IPW	6	Mary	W. Virginia
W4TX	5	Elbert	Mississippi

YEAR	TOTAL CHECK-INS	AVERAGE PER SUNDAY
1998	694	14.46
1999	766	15.95
2000	1,035	20.29
2001	1153	22.60
2002	1383	26.15
2003	1489	28.63
2004	1534	29.50
2005	1517	29.17
2006	1531 (one extra Sunday)	28.89
2007	1591 (one extra Sunday)	30.02
2008	1524 (Only 46 nets)	33.14
2009	1533 (46 nets)	33.32
2010	1591 (44 nets)	36.22
2011	1514 (44 nets)	34.41
2012	1602 (44 nets)	36.41
2013*	1400 (44 nets) (New Freq)	31.82 (Year of Terrorist)
2014	1756 (47 nets)	37.36
2015	1722 (49 nets)	35.14
2016	1197 (33 nets)	36.27

Record number of stations checked-in was 51, on Feb. 24, 2013

DYSAUTONOMIA

Presented on MARCO Grand Rounds of the Air, July 31, 2016



Dysautonomia is a term for various conditions in which the autonomic nervous system (ANS) doesn't work right.. The patient comes in your office with fatigue, dizziness, palpitations, blurred vision, passing out, chest discomfort, shortness of breath and with marked problems with concentration or "brain fog"—all the symptoms of a "crock" which you nicely label as "acute anxiety syndrome."

The majority of the medical community knows nothing of dysautonomia and it ends up getting misdiagnosed several times before the correct diagnosis is made. The average time from symptoms to diagnosis is about 6 years. And to make it worse, this is a syndrome that affects mainly females in a 5-1 radio, usually between ages 12 and 45, and the majority of these are teens to early 20's.

Many times the first symptoms they have is passing out. But even before that, they may have symptoms that are just blown off. Because they look fine, they get labeled as lazy or dumb, supposedly trying to find ways of getting out of school. Labs and x-rays and other tests come back normal and the patient is labeled "crazy" or "psychoneurotic."

The top 7 Signs & Symptoms of Dysautonomia are: Difficulty Standing still. Fatigue, lightheadedness, nausea & other GI symptom. Brain fog or mental clouding, palpitations or chest discomfort, shortness of breath or difficulty breathing.

Once diagnosed the more daunting battle begins: finding the right treatments. Keep in mind, the autonomic nervous system operates at the very border of both the mind and the body and involves multiple organ systems. It is responsible for the internal adjustments that accompany every motion a person performs and every emotion a person feels. Avoid assessing symptoms at first glance. What appears at first glance to be anxiety due to an emotional reaction may actually be abnormal chemical release mediated by an internal-physiological abnormality such as a catecholamine disorder (e.g. what looks like a panic attack may be an abnormal release of adrenaline causing palpitations, dilation of blood vessels in the large muscles, hyperventilation and /or bronchial constriction.)

Pain and stress are the top two enemies of dysautonomia. Why? Because pain and stress trigger the fight-or-flight response to a given situation, which may cause the release of chemical mediators such as catecholamines, neurotransmitters, hormones and /or cytokines that can potentially over stimulate the sympathetic nervous system. When this occurs, it is as if the system goes into overdrive, like revving the engine of a car in the garage. Or the reverse could happen, a marked drop in nor epinephrine could cause an abnormal parasympathetic response, like the car stalling out due to lack of appropriate fuel.

The key players are catecholamines which includes Norepinephrine, Epinephrine, Dopamine, AND histamines, serotonin, prostaglandins, nitric oxide and endothelins among others. In dysautonomia the patient is either **getting too much or too little of these vital neurotransmitters**

Measuring levels of catecholamines and related chemicals is a key part of the workup as these are the only main chemical messengers of the autonomic nervous system that can be measured in plasma, urine, or spinal fluid.

Drugs that affect the production, release, or inactivation of catecholamines, or that work by stimulating or blocking receptors for catecholamines, are mainstays in the treatment of various forms of dysautonomia.

A major way dysautonomia cause problems is by producing orthostatic intolerance (OT). Patients with OT cannot tolerate prolonged standing. OT is seen in many conditions. About 60% of those with chronic fatigue syndrome have this problem, along with postural tachycardia syndrome (POTS) or autonomic ally mediated syncope (fainting), or both.

Brain Fog, or mental clouding, occurs when there is an insufficient amount of blood flow to the cerebral cortex. This lower flow causes difficulty with concentrating, finding words& laying down short-term memory.

In chronic OT the patient consistently experiences symptoms and demonstrates abnormal drops in blood pressure or abnormal increases in heart rate, or both, upon standing. The severity of symptoms can range from mild to disabling, and can often be correlated with the amount of time that passes before the patient becomes symptomatic. Usually the patient is unable to stand for more than a minute before experiencing symptoms.

Neurocirculatory failure is failure of the sympathetic system to correctly regulate the heart and blood vessel flow...the patient has a fall in blood pressure during standing. Most of these cases are neurodegenerative in nature (older age)..

The **orthostatic vitals test (***or Tilt-Table test)* is used to evaluate the body's response to a change in position. It examines changes in your heart rate and blood pressure when you are resting, sitting and standing. In **Neurogenic Orthostatic Hypotension (NOH)** there is consistently drops in blood pressure within 3 minutes of standing by 20 mmHG systolic/10 mmHg diastolic and an absence of tachycardia. In **Postural Orthostatic Tachycardia Syndrome (POTS)** most cases maintain blood pressure but there is an increase of 30 bpm (*beats per minute)* or sustained tachycardia above 120 with symptoms of syncope or presyncope. In **Autonomically Mediated Syncope (AMS)** there is a drop in BP that leads to syncope or symptoms of presyncope. All of these are types of dysautonomia.

In the above we are determining if the sympathetic/parasympathetic systems are working in harmony

The following tests are available for diagnosis: The Tilt Table Test, Quantitative Sudomotor Axon Reflex Test, The Valsalva Maneuver, the Cold Pressor Test, Heart Rate Variability, Blood volume testing, Catecholamine Tests, Antibody Tests, Skin biopsies, Neuroimaging tests, Genetic testing, Thermoregulatory Sweat Test, Clonidine Suppression Test.

Dysautonomia can occur as a **primary condition**, or as a condition **secondary** to another where, in most cases the dysautonomia is a compensatory reaction to something else going on in the body such as diabetes.

There is an association between autoimmune conditions and dysautonomia. Both are common and occur more often in females than in males. Both are challenging to diagnose and manage because of diverse clinical presentations. There are some instances of autonomic disorders that are directly caused by the immune system interacting with the autonomic nerves.

Treatments...*Non-Pharmacological:* Do not become dehydrated, keep your weight down, avoid stress and exercise daily.

Pharmacological Treatments: Florinef, *(Fludrocortisone),* Midodrine (*Proamatine)*, Beta Blockers, Clonidine, Yohimbine, Amphetamines, Droxidopa, SSRIs, Benzodiazepines, I.V. saline, Xanex, Klonapin, Tricyclic antidepressants, Procrit, Ivabradine, DDAVP, urecholine.

Summarizing, Dysautonomia is a general term to describe a group of disorders of the autonomic sympathetic-parasympathetic nervous systems. Symptoms usually range from mild to disabling, but in some cases can be life threatening. Because most of the problems occur inside the body, dysautonomia is an "invisible illness."

(To acquire a more thorough understanding of this enticing subject, read "The Dysautonomia Project" by Freeman, Goldstein & Thompson, ISBN-978-1-938842-24-5, Published by Bardolf & Co., 5430 Colewood Pl., Sarasota, FL. 34232.)

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PERSONAL ADS

LONG-TERM COMMITMENT... Recent widow who has just buried 4th husband looking for someone to round-out a six-unit plot. Dizziness, fainting, shortness of breath not a problem.

MEMORIES...I can usually remember Monday through Thursday. If you can remember Friday, Saturday and Sunday, let's get our two heads together.

MINT CONDITION... Male, class of 1922, high mileage, good condition, some hair, many new par
ts, including hip, knee, cornea, valves. Isn't in running condition but walks well.

SERENITY NOW...I am into solitude, long walks, sunrises, the ocean, yoga and meditation. If you are the silent type, let's get together, take out our hearing aids and enjoy quiet times.

WINNING SMILE... Active grandmother with original teeth seeking a dedicated flosser to share rare steaks, corn on the cob and caramel candy.

"...TO THE SHORES OF TRIPOLI"—U.S. HISTORY

When Thomas Jefferson saw there was no negotiating with Muslims, he formed what is the Marines. These Marines were attached to U.S. Merchant vessels. When the Muslims attacked U.S. merchant vessels, they were repulsed by armed soldiers but there is ***MORE***……

The Marines followed the Muslims back to their villages and destroyed their homes. It didn't' take long for the Muslims to leave U.S. Merchant vessels alone. English and French merchant vessels started running up our flag when entering the Mediterranean to secure safe travel.

Why the Marine Hymn contains the verse "*...to the shores of Tripoli*." This is a must read as it points out where we may be heading in the future— for over two hundred year ago, the U.S. declared war on Islam and Thomas Jefferson led the charge!

At the height of the 18th century, Muslim pirates (the "*Barbary Pirates*") were the terror of the Mediterranean and a large area of the North Atlantic. They attacked every ship in sight and held the crews for ransom. Those taken hostage were subjected to barbaric treatment and wrote heart-breaking letters home, begging their government and family members to pay whatever their captors demanded.

These extortionists of the high seas represented the North African Islamic nations of Tripoli, Tunis, Morocco and Algiers—collectively referred to as the Barbary Coast—and presented a dangerous and unprovoked threat to the new American Republic.

Before the Revolution, U.S. merchant ships had been under the protection of Great Britain. When the U.S. declared its independence and entered into war, the ships of the U.S. were protected by France. However, once the war was won, America had to protect its own fleets.

Thus, the birth of the U.S. Navy. Beginning in 1784, 17 years before he would become president, Thomas Jefferson became America's Minister to France. That same year, the U.S. Congress sought to appease its Muslim adversaries by following in the footsteps of European nations who paid bribes to the Barbary States rather then engaging them in war.

In July of 1785, Algerian pirates captured American ships, and the Dye of Algiers demanded an unheard-of ransom of $60,000. It was a plain and simple case of extortion, and Jefferson was vehemently opposed to any further payments . Instead, he proposed to Congress the formation of a coalition of allied nations who together would force the Islamic states into peace. A disinterested Congress decided to pay the ransom.

In 1786, Thomas Jefferson and John Adams met with Tripoli's ambassador to Great Britain to ask by what right his nation attacked American ships and enslaved American citizens, and why Muslims held so much hostility towards America, a nation with which they had no previous contacts.

The two future presidents reported that Ambassador Sidi Haji Abdul Rahman Adja had answered that Islam "*was founded on the Laws of their Prophet, that it was written in their Quran that all nations who would not acknowledge their authority were sinners, that it was their right and duty to make war upon them wherever they could be found and to make slaves of all they could take as prisoners, and that every Musselman (Muslim) who should be slain in battle was sure to go to Paradise."*

Despite this stunning admission of premeditated violence on non-Muslim nations, as well as the objections of many notable American leaders, including George Washington, who warned that caving in was both wrong and would only further embolden the enemy, for the following 15 years the American government paid the Muslims millions of dollars for the safe passage of American ships or the return of American hostages. The payments in ransom and tribute amounted to over 20% of the U.S.'s annual revenues in 1800.

Jefferson was disgusted. Shortly after his being sworn in as the third President of the U.S. in 1801, the Pasha of Tripoli sent him a note demanding the immediate payment of $225,000 plus $25,000 a year for every year forthcoming. That changed everything.

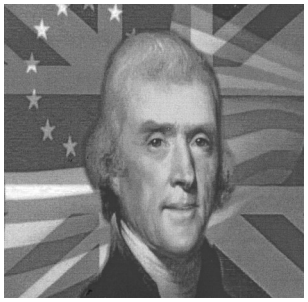
Jefferson let the Pasha know, in no uncertain terms, what he could do with his demand. The Pasha responded by cutting down the flagpole at the American consulate and declared war on the U.S. Tunis, Morocco, and Algiers immediately followed suit. Jefferson, until now, had been against America raising a naval force for anything beyond coastal defense, but, having watched his nation be cowed by Islamic thuggery for long enough, decided that it was finally time to meet force with force.

He dispatched a squadron of frigates to the Med and taught the Muslim nations a lesson he hoped they would never forget. Congress authorized Jefferson to empower U.S. ships to seize all vessels and goods of the Pasha of Tripoli and to "*cause to be done all other acts of precaution or hostility as the state of war would justify*."

When Algiers and Tunis, who were both accustomed to American cowardice and acquiescence, saw the newly independent U.S. had both the will and the right to strike back, they quickly abandoned their allegiance to Tripoli. The war with Tripoli lasted for four more years and raged up again in 1815. The bravery of the U.S. Marine Corps in these wars led to the line "….*to the shores of Tripoli*" in the Marine Hymn, and they would forever be known as "*leathernecks*" for the leather collars of their uniforms designed to prevent their heads from being cut off by the Muslim scimitar when boarding enemy ships.

Islam, and what its Barbary followers justified doing in the name of their prophet and their god, disturbed Jefferson quite deeply. America had a traditional religious tolerance, in fact Jerrerson, himself, had co-authored the Virginia Statute for Religious Freedom, but fundamentalist Islam was like no other religion the world had ever seen. A religion based on supremacy, whose holy book not only condoned but mandated violence against unbelievers, was unacceptable to him. His greatest fear was that someday, this band of Islam would return and pose an even greater threat to the United States.

Now you understand why we have the highest respect for our U.S. Marines!



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EFFECTS OF EXERCISE IN THOSE WITH CHRONIC HEART FAILURE

(As presented on MARCO Grand Rounds of the Air, Sept. 2016.)

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Until recently, exercise intolerance among patients with chronic heart failure was regarded as a warning symptom precluding any strenuous physical activity to avert cardiac decomposition. During the past decade, however, we have found that this approach accelerates physical deconditioning and may worsen heart failure. Carefully designed endurance training can improve functional work capacity in patients with chronic heart failure.

Training benefits have been attributed to peripheral adaptations including enhanced oxidative capacity of the working skeletal muscle and correction of endothelial dysfunction in the skeletal muscle vasculature.

However, concerns have been raised that these peripheral adaptations in response to short-term exercise may worsen left ventricular dimensions, contractile function, or both.

Exercise training initiated early following an anterior Q wave AMI can lead to a deterioration in both global and regional function in patients with significant LV asynergy at baseline.

73 men, 70 or lower with chronic heart failure were in the this trial in Germany. They all had documented heart failure with LV ejections of less than 40% as a result of dilated cardiomayopathy or ischemic heart disesease and were clinically stabile for 3 months before entry into the study. Exclusion included valvular heart disease, uncontrolled hypertension, diabetes and hyper cholesterolemia, peripheral vascular disease & pulmonary disease

During the first 2 weeks patients exercised 4 to 6 X daily for 10 minutes using a bicycle ergometer. Target rate for home training was at 70% of max. On discharge they were provided with bicycle ergometers for daily home exercise. They were told to exercise daily for 20 minutes every day for 6 months. A control group continued their individually tailored meds.

All patients underwent a resting echo both initially and finally. There was also assessment of lower limb endothelial function, catheter in the left superficial femoral artery and blood flow velocity determined.

RESULTS: Drug treatment was not changed during the testing...3 died sudden cardiac death unrelated to exercise during the study of six months. In the control group 2 died suddenly.

1. Aerobic endurance training leads to an increase in LV stroke volume at rest and during exercise and to a small but significant decrease in LV end diastolic diameter and volume. 2. Cardiac output at rest and during subpeak exercise remains unchanged. 3. Long-term exercise training is associated with a considerable reduction of total peripheral resistance (TPR) at rest and at peak exercise. There is an improved endothelium vasodilatation of the skeletal muscle vasculature and reduction of total peripheral resistance during exercise. 3. Change in TPR are related to changes in stroke volume and LV end diastolic diameter. These results suggest that in patients with stable chronic heart failure, regular physical exercise of 6 months is associated with a significant afterload reduction. This beneficial training effect lasts to a small but significant improvement in LVV stroke volume and reduction in cardiomegaly.

The major goals of any therapy for chronic heart failure continue to be reduction of LV wall stress, increase of cardiac output and reduction of afterload. Also, heart rate decreased with training which meant that the lengthened diastolic filling period augmented stroke volume by the Frank-Starling mechanism.

"EMPIRE OF THE AIR
The Men Who Made Radio"

Excerpts from Tom Lewis fine book by that name

A New Empire for a New Century

BACKGROUND: Most people believe Marconi invented the radio; he did not. His contribution was the wireless telegraph, which permitted the transmission of coded messages through the air. Radio made a huge leap beyond the coded confines of the telegraph. The new medium of radio was to the printing press what the telephone had been to the letter; it allowed immediacy. It enabled listeners to experience an event as it happened.

Despite its ever-widening sphere of influence, the US of 1899 presents a picture of singular insularity. A total of 21,173 newspapers were published in the US, but only 2,200 came out daily. The rest appeared weekly, monthly and semimonthly. More important than the number was the coverage. In Illinois 1,732 newspapers served an estimated 5.8 million; almost every paper had a regional circulation confined to a particular city, town or village. Only a few newspapers in the US reached across state lines. For four successive days in June 1899, during the commencement week of important eastern colleges, the N.Y. Times chose to run as its lead story on page 1, the results of the Ivy League boat races at New London, including Yale's ignominious defeat by the men of Harvard.

When newspapers looked to Europe for political news that spring, it was usually to report on the fortunes of Capt. Alfred Dreyfus. The trial of Dreyfus, an Alsatian, for treason in 1895 had been controversial from the beginning. In June 1899, the conviction was set aside by the French courts, and Dreyfus was returned from his prison cell on Devil's Island off the coast of French Guiana for his second trial. Daily, the papers told of the progress of the *Sfax*, which was carrying the prisoner to France, or of the trial and conviction of Emile Zola, whose open letter about the affair, *J'accuse*, had earned the novelist a year's imprisonment.

Mostly, however, people were interested in Europe not for its political events but for its culture. In France and England that spring, a woman was playing the lead role in *Hamlet.* "Its strange that after all these centuries which divide us from the poet's lifetime it should be a woman who reveals *Hamlet* to us" a reporter wrote. "But so it is. Sarah Bernhardt, with that amazing intuition and subtlety of performance which are her leading intellectual and artistic qualities, takes our hand in hers and places it right over Shakespeare's heart."

Even news of direct interest to Americans came slowly and incompletely. In 1898, it had taken three days for Americans to learn that George Dewey had defeated the Spanish fleet at Manila Bay in the Philippines. Americans read the reports of the war carefully, but they read them late, without the immediacy that the new medium offered. Radio would bind Americans together, enabling them to partake of a national event as it was happening.

The work of **Lee de Forest, Edwin Howard Armstrong** and **David Sarnoff** spanned a half century—from a time when the country possessed unbounded confidence in the power of science and technology, through two devastating world wars, a staggering economic collapse, the New Deal, and the Korean War. In the course of their careers, the role of the inventor changed. No longer would an individual—a Thomas Edison or a Charles Goodyear—work alone or with a few assistants to make great discoveries. Now groups of anonymous technicians would labor for giant corporations.

Those who created radio experienced stunning defeats as well as extraordinary victories. De Forest made and lost three fortunes, was married four times, saw most of his companies go bankrupt, and nearly went to jail for fraud. Sarnoff's aggressive nature earned him the enmity of many in the broadcasting and electronics industries. Armstrong, once the largest shareholder in RCA, lost almost his entire fortune suing the company and promoting his FM inventions, including radio, stereo, and multiplexing.

Each of these men acted as a protagonist in a drama with Olympian overtones, replete with the elements of classic tragedy; anger and distrust; hubris and blindness; destruction and death. Distrust led to numerous bitter patent suits. De Forest successfully sued Armstrong for patent infringement in a long and acrimonious case that lasted

nearly twenty years, yet the radio industry has generally believed that Armstrong was in the right. Litigation with RCA and other companies over patent rights left Armstrong in debt, ruined his marriage, and destroyed his health. Declaring he had "made a mess of his life," the inventor committed suicide in 1954. Though saddened in Armstrong's death, Sarnoff believed deeply in the power of the corporation over the individual inventor. He devoted much of his later life to creating a legend about himself and his own business abilities.

The world de Forest, Armstrong and Sarnoff helped to make was altogether new, but they were driven to create it by ancient qualities, idealism and imagination, greed and envy, ambition and determination—ad genius.

THE FAITH IN THE FUTURE

"Finis to Yale" wrote Lee de Forest in his journal on the last Wednesday of June 1899, his last day at the university. The 26-year old Yale graduate was a man with unusually great ambitions, even for a doctoral student. Earlier that day he had sat in the university's Battell Memorial Chapel with 615 candidates for degrees, listening to President Timothy Dwight tell the graduates they were at the threshold of a new century. "*"Let us take to ourselves,"* Dwight said, "*the hops which it opens for us—the energy which it asks of us—the grand thought and purpose which it inspires—the faith in the future which may fitly find its abiding place in the soul of every man who has known the spirit and life of Yale."*

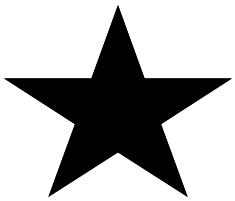
The spirit of Yale. Some called it "grit," likening it to the sand put beneath train wheels to give them traction. Yale's spirit and the future of the nation fused into one. Yale, and the country it served, stood poised together at the start of what they imagined would be the "American century." They shared a faith in an American future defined by advances in science and technology, victory in war, and triumphant nationalism. Yale graduates took for granted that with their determination and training—and their connections—they would be a part of the dominant class in America and the world.

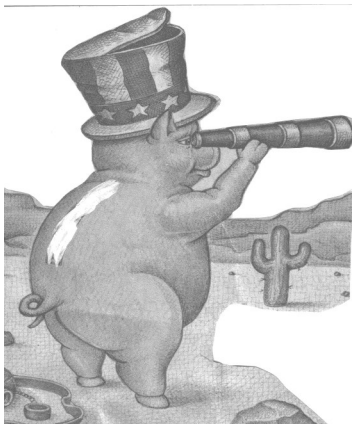
Lee de Forest shared the sentiments of the occasion and many of the experiences of his fellow graduates. Less wealthy than most of the other Yale students, he had come north from Alabama for his education. Like others, though, he had rowed on Lake Whitney, debated the merits of evolutionary theory, walked down Chapel Street with a pipe in his hand looking for girls. Cheered when Yale took on Harvard or Princeton in football or basketball, jeered when William Jennings Bryan came to speak about the gold standard and wholeheartedly supported America's role in the recent Spanish-American War and the subscription to arm the *Yale*, the American gunboat named after the university. Most of all, he shared with others President Dwight's unbridled faith in the future and of the part he would play in it.

Spending his years at Yale studying mechanics and electricity, de Forrest had tinkered and invented, all the while recoding his thoughts in a voluminous journal. He had invented a steam condenser for an engine and a novel trolley system, a pants creaser and an ear cleaner; he had designed improvements for the draftsman's compass and the typewriter, and he had devised puzzles. Though manufacturers rejected all his proposals, he was undaunted. Assured of his own genius, he knew that with the grit and determination he would prevail in the coming century. **(Continued next edition)**

NEW FACES* for MARCO & RENEWALS, as of ———

Report not available— will appear in next December edition.





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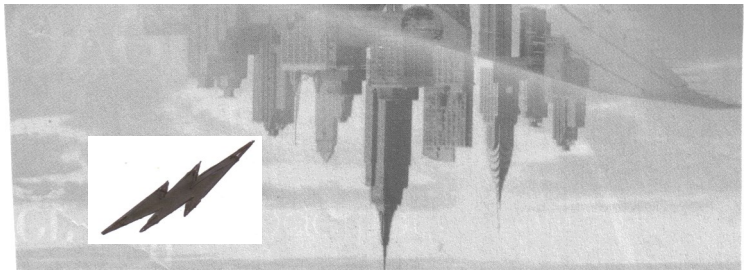

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Sunday	11 a.m.	14.342	KD4GUA

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