HERBAL SUPPLEMENTS – TOP TEN June 16, 2005

Herb	Potential benefit	Risk
Garlic	lipid and BP reduction; anti-platelet activity	Bleeding risk. Interaction with protease inhibitors
Gingko	Dementia	Seizures; anti-platelet effects
Echinacea	Immune stimulant	anaphylaxis, photosensitivity, GI complaints
Soy	Decreased cholesterol and hot flashes	decreased INR on warfarin; ? ^ breast cancer risk; decreased thyroid absorption
Saw palmetto	BPH (anti-androgenic and anti-estrogenic)	N, D, abdominal pain, erectile dysfunction
Ginseng-American	hyperglycemia in DM2; increased insulin sensitivity	none
Ginseng-Asian	Improve well being (no evidence of efficacy)	HT, HA, decrease INR, interacts with MAOI.
St. John's Wart	Depression	Induces cytochrome P405 3A: Decreased levels of CCBs, statins, benzodiazepines, erythromycin, and protease inhibitors.
Black cohosh	menopausal symptoms; estrogen receptor modulator	GI distress; hepatotoxicity; rash
Cranberry juice	UTI prevention (300 cc /day)	May alter INR with warfarin; increases urinary oxalate.
Valerian	Insomnia	headache

AGENTS FOR DIABETES type 2. November 1, 2005

Class	Drug	trade name	mecha-nism	advantages/ 2 indications	disadvantages	Dosing	cost 30 ds wholesale
Sulfonylurea	glipizide	glucotrol	^ insulin secretion	NL or Slight obesity. Cost Better in renal insufficiency than glyburide.	Weight gain. No benefit beyond ½ of maximal dose.	Initial QD. Then BID. 30 min before meal. 5-40mg/day. XL is ½ this.	$11
Biguanide	metformin 1,2,4	glucophage glucophage XR.	V hep gluc prod'n & see 1.	Use in obese. May lower weight Decrease triglycerides	Contraindicated in age >80, significant renal (Cr 1.5+ and 1.4+ in M & W resp)CHF,etoh excess, or liver disease (may cause lactic acidosis). Stop 48 hrs before contrast study.	Initially 500mg QD with evening meal. Then BID or TID Dose: 1500-2550. Change in 1-2 weeks.	$70
Thiazolidine-dione	pioglitazone rosiglitazone 2,3	Actos Avandia	Ditto	Ditto. Can use as an alternative to metformin. Used in metabolic syndr's.	More wt gain. May ^ CHF. (Rltve contraind) and LFTs (d/c if 2x NL). Pioglitazone has fewer side effects. Can take 2 to 10 weeks to have an effect.	QD or Divided. Pioglitazone: 15 -45 mg. 15,30,45 mg tabs rosiglitazone: 4-8 mg	$78
	Exenetide	Byetta		Weight loss. Those not controlled with metformin &/or sulfonylurea	Subcu, dizzy, HA,n,v,d	5 mcg s.c. BID 1 hr pre-prandially. In 1 mo, ^ to 10	HI
	Inhaled insulin	Exubera			hypoglycemia, weight gain	1-2 inhalations 10 min pre-prandially. 1 mg =3 U inslin	HI
	Insulin(at HS > v dawn phenmnn)			Initial hyperglycemia to v insulin resistance, or poor control oral ly.	Weight gain. Hypoglycemia	Staret with bedtime NPH. Increase 3-5 units/week. (8)	inexpen.
Alpha-glucosidase inhibitor	Acarbose	Precose	Vglucose abs'n	Additive to other meds. Wt control	Flatulence, diarrhea. 10% compliance at 2 years.	Begin with small dose. TID. With 1st bite 150-300 mg	$52
Lipase inhibitor	Orlistat	Xenical	v fat abs'n.	Weight loss (6)	Weight may return over time. Fecal incont(8%), abd pain(1/4)	120 mg TID with meals. Add multivits; lo fat diet.	

All Type II diabetics should be on a baby aspirin. Rxoutreach.com gives lowest prices.

1 Metformin decreases hepatic glucose production, decreasing intestinal glucose absorption, and increasing insulin sensitivity). Metformin had a greater benefit in decreasing mortality and diabetes related endpoints versus insulin or chlorpropamide (UKPDS, Lancet 1998;352:854).

2 Mortformin, glitazones, and glipizide decrease HgbA1C by 1-2%, 0.5-1.3%, and 1-2% respectively.

3 Thiazolidinediones decrease muscle and hepatic glucose production, increase glucose use by these tissues, and increase insulin secretion.

4 Patients with PCOD are good candidates for glitazones and metformin.

5 If the DM 2 patient is asymptomatic without ketonuria, fairly levels of glucose of up to 400-500 can be tolerated and you can afford to bring glucose down gradually. Don't overtreat.

6 Other anti-obesity drugs: Sibutramine (Meridia). Blocks uptake of nor epinephrine & serotonin. Decreases glucose & LDL & increases HDL. Adverse effect: Hypertension. Rimonabant (Acomplia): Appetite suppressant. Decreases glucose. Adverse effects: anxiety and diarrhea. (NEJM 2005;353:2111, 2121.)

7. Give an aspirin in all diabetics.

8.DCCT in DM 1:A1C 7.3% vs 9.1> v in microvascular complications(neruopathy v60%, microscopic ablumin, renal failure v54%, retinopathy v47%). F/u:57% v in MI, CVA,or death (NEJM 2005;353:2643). UKPDS in DM 2 showed similar results; also in UKPDS: BP Control to 142/88 >>v macrovascular complications: v in DM death, CHF, and CVA.

*Trigylcerides are very dependent on glucose control !!! All diabetics should be on a statin and an aspirin. Use Vytorin 10 mg Simvastatin/40 mg Ezetimibe.

1 Statins block HMGCoA reducatse, inhibiting cholesterol synthesis, which increases LDL receptors and LDL catabolism; statins decrease mortality by 35%, niacin decreases mortality, cardiac mortality, and cardiac events; gemfibrozil and cholestyramine decrease cardiac mortality and cardiovascular events.

2 Fibrates enhances lipoprotein lipase synthesis and hence VLDL breakdown.

3 Nicontinic Acid blocks VLDL synthesis and is the only drug known to decrease Lp(a), a prothrombotic and an independent CV risk fator; shown to decrease mortality.

5. Omega 3 FA's have been shown to reduce overall mortality, sudden death, and infarction, and improve angiograms in RCTs.

6. Check TSH for hypothyroidism, which is correlated with dyslipidemia.

7. Exercise, smoking cessation, weight reduction & loc calorie hi dietary fat will elevate HDL. Drug-related increases in HDL not shown to decrease mortality (NEJM 2005;353:1252).

8.9/05: When to start drugs, to goal: LDL100^{+} + CVD, to <70/ LDL130^{+} & no CVD, to <100/ TG>400, to <150/ HDL goal: men>50 & women >40.

9 CYP3RA, inhibited by fibrates, catabolizes statins, except for pravastatin. Glucorinadation for renal excretion of statins is effected by gemfibrozil but not fenofibrate. Therefore, the pravastatin-fenofibrate combination is optimal. Pravastatin or rosuvastatin (Crestor.. Cheaper than atorvastatin) are the best drugs to use in liver dis (UTD).

10. Niaspin XR has no hepatotxicity. Use crystalline niacin for lower toxicity.

Testicular pain or masses October 21, 2004

NON ACUTE

			Trans-illuminate ?	Rx	Other
Varicocele: rule out renal ca.	Dull Ache, increased ln standing.	**Left or bilateral** Bag of worms around spermatocord. More obvious on standing or with valsalva	Yes	Surgery if sx'c. Check semen quality Q 2yrs	If Rt Unilateral, think IVC obstruction – clot or **tumor**
Hydrocele: rule out renal ca.	Gradual onset	Fluid. Increased size has increased pain	Yes	Drain & instill sclerosing agen.	
Testicular Cancer		Painless, non-tender, firm	NO	W/U	DO US. If ?, do MRI.

ACUTE

Disease	HX/ Setting/ PE	Tests	RX	
Testicular torsion (1/3)	Younger patients. Severe pain. Bell clapper abnormality. **Worsening or No relief of pain with elevation of testis.**	US	Immediate surgery. (Sometimes can rotate laterally)	
Appendiceal torsion (½ but very young)	Anterior superior testicular abnormality. Blue dot in 1/5. Cremasteric reflex may be +	US	Ice & anti-inflammatories. Usually need surgery.	
Epididymitis (1/3)	Acute: Severe pain & systemic symptoms. May have hdyrocele. Subacute: Often Post sex or exercise. Chronic. Show epididymal induration with varying tenderness. **Improvement of pain with elevation of testis.**	U/A US if question	< 35 y.o. Rx for Chlamydia & gonorrhea with Ceftriaxone & docycycline. >35 y.o. but h/o sexual activity, cover as above, but add coverage with oflaxacin for E Coli > 35 y.o., no sexual exposure, oflaxacin only.	
Other illnesses: Testicular rupture Trauma Henoch Schoenlein Purpura. Hernia Mumps				

CALCIUM CHANNEL BLOCKERS

	Vasodilation	Negative Inotrope	Decrease HR*	Comment
Dihidropyridine, **Short Acting** Nifedipine (Procardia)	**Marked**			Edema in CHD. Increase risk of death in CHD. Do not use in hypertension
Dihidropyridine, **Long Acting:** ** Felodipine Nicardipine, Isradipine, Nifedipine GITS & CC Nisoldipine	**Marked**	Slight		May be safe in patients with HYP & CHF Reflex tachycardia.
Dihidropyridine, **Long Acting: ** Amlodipine (Norvasc)	**Marked**			Avoid in CHF. Increase in CHF compared to chlorthalidone in those with DM. Can also be used for migraine.
Diltiazem (Cardiozem) (3)	Slight	**Marked**	**Marked**	Avoid in CHF. Acute control in A.Fib. Best side effect profile. Gingival hyperplasia.
Verapamil (Isoptin) (3)	Slight	**Marked**	**Marked**	Avoid in CHF. Constipation. Raises dig level by 50%.Contraindicted in those with conduction abnormality or those on beta blocker. Gingival hyperplasia.

*Decrease AV node conduction

** Use these drugs. OK for angina in heart disease per MKSAP XIII, Don Dye.

(3) Diltiazem, verapamil,atenologl, and metoprolol are recommended for rate control in chronic atrial fibrillation.

RHINITIS January 27, 2005

Allergic
Seasonal allergens
Perennial allergens

Inflammatory
Infectious rhinitis
Eosinophilic rhinitis/nasal polyposis

Hormonal
Pregnancy/oral contraceptives
Hypothyroidism

Rhinitis Medicamentosa
Topical decongestants
Antihypertensives
Antidepressants
Cocaine
Vasomotor

Irritant induced (pollution, cigarette smoke)
Cold-air induced
Gastronomic

Anatomic
Septal deviation
Tumor/neoplasm
Foreign body
Cerebrospinal fluid leak
Atrophy

Cystic Fibrosis

Allergic rhinitis: skin testing for responses to suspected allergens is diagnostic.
Specificity can be demonstrated by binding to a solid-phase antigen via the RAST test (uptake of radiolabeled anti-IgE allergosorbent technique (RAST). RAST is more difficult than skin testing because of the requirement for defined antigens and standardization.

Nose bleed: sit up and lean forward at waist. Ice packs and pressure on nose. Use oxymetazoline intranasally.

Benzodiazepines and tricyclics lead the list of medications that predispose to falls.

For acne in women, where it is related to androgenic habitus, use combined estrogen + progestin contraceptive. Spironolactone also works but does not improve any associated menstrual irregularity. (Q 42, MKSAP 13)

Operations and anti-coagulation: if the patient is already on an anti-coagulant and if there is no clot or prior history of clot (e.g., if anti-coagulant is for A.F., which has never thrown an embolus), just hold warfarin for 2 days before surgery. If there is a higher risk, manage by covering with unfractionated IV heparin until the morning of surgery and discontinue 4 hours prior to surgery (½ life is 1.5 hours); depending on the risk of bleeding from surgery, you may or may not resume the heparin post op until warfarin becomes therapeutic. Uptodate: Management of anticoagulation pre and post op.

For patients who are not on an anti-coagulant and who are undergoing immobilizing surgery such as joint replacement (low bleeding risk), you can start warfarin 1 day before the surgery and cover them with unfractionated heparin at therapeutic dose (onset in 30 minutes) after surgery until warfarin becomes therapeutic.

In Hoarseness and or cough, where there is circumstantial evidence of GERD, 2 month course of PPI can be successful in 90%.

Asymmetric hearing loss by audiometry may represent cerebellar pontine angle tumor.

Hypertension: effective salt restriction is 4 gm/day; exercise is the greatest contributor to controlling BP. (Q5, MKSAP 13)

Hydrochlorothiazide is constipating.

Refer to urologist if PSA > 4.0 or increase in PSA is > 0.75 ng/ml/year.

Polyurethane condoms are available for those with latex allergy.

"Morning after pill" such as Plan B (progestins) can be effective if given within 72 hours of intercourse. Also, one can prescribe ethinyl estradiol 100 mcg and levonorgestrel 0.5 mg immediately and again in 12 hours.

With splenomegaly associated for example with infectious mononucleosis, one has to be concerned about rupturing a spleen due to splenomegaly.

For bee stings, decrease risk of stings with light colored clothing and no perfumes.
Honeybee sensitivity is not predictive of sensitivity to Vespids which include wasps, yellow jackets and hornets.
A severe local skin reaction is not predictive of future anaphylaxis.

Have a high index of suspicion for endometrial cancer in women over 40 years of age with continued menses with abnormal uterine bleeding: Vaginal ultrasound has a sensitivity of 92% for endometrial cancer but endometrial biopsy is more definitive. If cancer is excluded, examine possibility of hypothyroidism or coagulation disorders such as von Wildebrand's disease.

Levator ani syndrome.. Rectal pain increased with sitting.. Has no rectal fissures or hemorrhoids, but a tender rectum. Treat with hot bathes, NSAIDS, muscle relaxants.

Have a high index of suspicion for breast masses that are negative on mammogram even when multiple (multiple fine needle biopsies) and particularly if non-cystic (excision biopsy).

In depression of the elderly, nortriptyline stimulates appetite more than an SSRI..

In pregnancy **or** suspect pregnancy, a UTI is treated with amoxicillin or ampicillin.

In screening for food allergies, skin prick testing is said to have high sensitivity.

For patients with painful spasms of pelvis and legs, baclofen via permanent epidural catheter can be given.

Psychiatric or social disorders:
Somatization disorder: 8 unexplained symptoms: 4 pain, 2 GI, 1 sexual, 1 neurologic.
Abridged somatization disorder: 4 unexplained symptoms. Occurs in ¼ of general internal medicine

outpatients. Use frequent non-patient-dependent visits.
Pain disorder: significant pain in one or more sites associated with psychologic factors.
Hypochondriasis is a fear of disease; reassurance is ineffective.
Malingering is intentionally falsifying symptoms.
Conversion disorder: loss of motor sensory function related to social or psychic conflicts. The presentation fits the patient's view of the disorder.

After ruling out malingering or serious pathology, the diagnostic categories are embraced by MUS: Medically Unexplained Symptoms. The management involves:
*Reassure that there is no serious disease present.
*Further testing is not required.
*Validate the patient's perception... it is not "all in your head".
*Provide a benign somatic diagnosis: e.g., muscle strain.
*"We can't necessarily cure it but we can take it out of the center of your life."
*Inquire about suicidal thoughts.
*Treat associated psychiatric disorders with appropriate meds. E.G.: GAD or depression with SSRIs.

OCPs:
Low dose formulations have fewer overall side effects but may have break through bleeding; but give a trial of 3 months.
If this doesn't work, try a different progestational agent.
If this doesn't work and there is still break through bleeding, then you will have to try a higher dose estrogen formulation.
If there are acne side effects, use a norgestimate formulation.... a particular kind of progestational formulation.

In cases of missed OCPs, the pituitary and ovaries need release from OCP suppression for more than 7 days to produce a fertilizable egg. Missing 2 to 4 days of pills at the beginning of menses is worse than during the middle of a menses because the pill-free interval is extended in the former but not the latter. Patients should take the most recent missing pill, continue and use caution. (Q 105, MKSAP 12).

Bladder spasm in MS can result in chronic UTI and staghorn calculi. Fix this with oxybutynin which decreases bladder pressure, reflux, tendency to UTI, and hence calculi. (Q109, MKSAP 12).

The "minor treatment statute" allows for treatment of persons over 14 years of age for STDS, mental health problems, substance abuse, and contraception. Other medical problems may require guardian's consent where person is a minor.

ADHD can be diagnosed in adults if there is a history of onset before age 7 years. There is little development of tolerance to treatment with methylphenidate but improved concentration is not diagnostic of ADHD. Psychostimulants have little abuse potential (Q105, MKSAP 12).

Acupuncture is documented to be effective in the N & V of chemotherapy (MKSAP 12, Q 113).

Uptodate has an algorithm for "Estimation of coronary risk before non-cardiac surgery". See ACP algorithm and Eagle criteria.

Jaw claudication and bilateral shoulder stiffness can signal TA; RX with prednisone urgently and obtain TA biopsy.

For women with DM 2 contemplating pregnancy, a) obtain UA for protein and creatinine clearance, U/A to r/o UTI, start tight insulin control perhaps switching to insulin and avoiding oral hypoglycemics whose fetal effects are unclear, and give 0.4 mg folate.

PPIs and cimetidine may augment traveler's diarrhea.

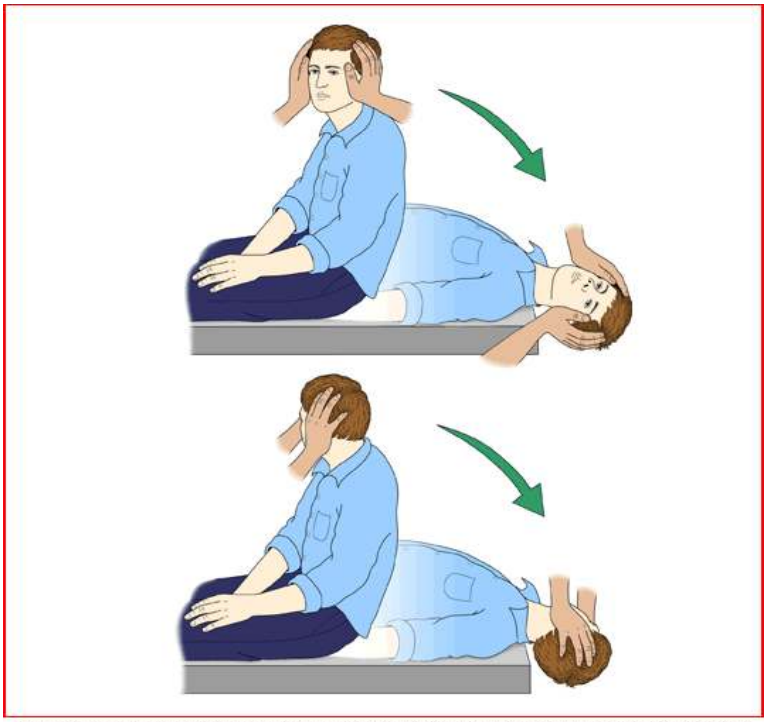
In post menopausal women, for vaginal infections, UTIs, and dyspareunia, a vaginal estrogen ring is better than conjugated estrogen cream because it is less messy and does not effect serum estrogen levels (Q117, MKSAP 13, Primary Care Medicine)

Hematuria from BPH can be successfully treated with finasteride (Propecia) a 5 alpha reductase inhibitor, blocking testosterone to dihydrotestoerone (Q 119, MKSAP 13, Primary Care Medicine)

A rise in INR to 1.3 after 2 days of coumadin could represent a patient very sensitive to coumadin; cut the dose in ½ and recheck in 2 days (Q 113, MKSAP 13, Primary Care Medicine)

Treatment of depression in elderly:

>Methylphenidate in the morning and at noon can often be associated with a rapid response with a cost of few side effects.
>Sertraline (Zoloft) and desipramine are for those with primarily psychomotor retardation
>Nortriptyline or nefazodone are more useful for those who display agitation.



Dix Hallpike Maneuver With the patient sitting, the neck is extended and turned to one side. The patient is then placed supine rapidly, so that the head hangs over the edge of the bed. The patient is kept in this position and observed for nystagmus for 30 seconds. Nystagmus usually appears with a latency of a few seconds and lasts less than 30 seconds. It has a typical trajectory, beating upward and torsionally, with the upper poles of the eyes beating toward the ground. After it stops and the patient sits up, the nystagmus will recur but in the opposite direction. Therefore, the patient is returned to upright and again observed for nystagmus for 30 seconds. If nystagmus is not provoked, the maneuver is repeated with the head turned to the other side. If nystagmus is provoked, the patient should have the maneuver repeated to the same (provoked) side; with each repetition, the intensity and duration of nystagmus will diminish.

For fall prevention, all community based elderly patients receive (1) gait training, (2) exercise, (3) treatment for postural hypotension, and (4) medication review of medicines, partiuclarly psychotropic medications (MKSAP 13 Update).

Treat benign prostatic hyperplasia with either the alpha 1 antagonist, doxazosin (Cardura) or tamulosin (Flomax), or the five alpha reductase inhibitor, finasteride (Propecia, Proscar) (MKSAP 13 update). Both have equal efficacy in reducing rate of progression. The two together are more effective than either alone in reducing progression. Finasteridc (Propecia or Proscar) and combination therapy also reduced urinary retention. Also, finasteride reduces the prevalence of prostate cancer relative to placebo, although this effect was more pronounced in the prevention of low grade lesions.

Note that tamsulosin (Flomax) is also used for BPH and has probably similar efficacy according to MSKAP 13 update but was not studied in RCT cited in MSKAP 13 Update. Also, combination doxazosin plus finasteride may have similar side effects compared with tamsulosin alone.

For alcoholism, treatment is AA and may be assisted by naltrexone (if not on opioids), disufluram (if not drinking), acamprosate, or topiramate.

Length of treatment for DVT/PE:
Warfarin Life long: 3+ unprovoked DVT, 2 DVTs with any type of thrombophilia, or one DVT in an unusual site.

Heparin Life long: DVT or PE secondary to cancer.

Warfarin for 12 months: 2 unprovoked PE OR one unprovoked PE with an irremovable risk factor (e.g., ACLA or Factor V Leiden).

Warfarin for 6 months: 1st unprovoked DVT.

Warfarin 3 - 6 months: one DVT with removable risk factor.