

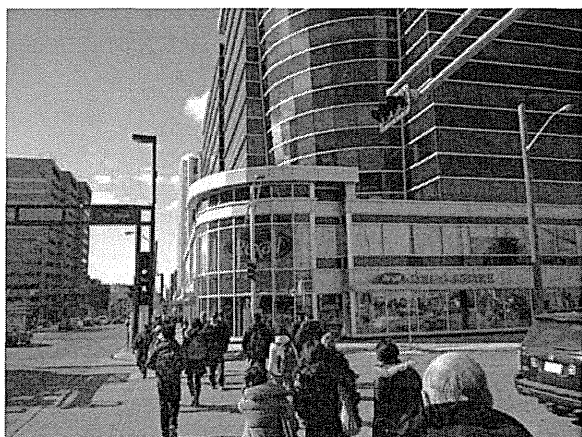
3. 2. 薬局における薬剤師業務

エドモントン市の 2 タイプの薬局を訪問した。1 つはダウンタウンにあるドラッグストア型、もう 1 つは病院内にある外来患者対応をしている調剤薬局型（日本で分類するなら）であった。どちらも Rexall という同じ会社の薬局であった。それぞれの特徴などを紹介する。

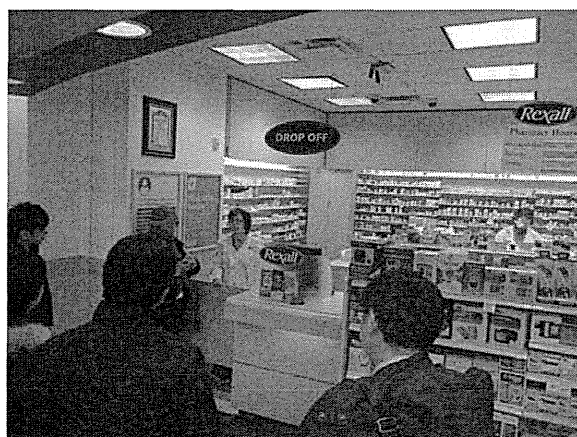
(1) ダウンタウン

ドラッグストア型の薬局であるため、日常雑貨なども取り扱っていた。一番奥のスペースが処方せん対応をする調剤室があり、その横にはカウンセリングルームが設置されていた。調剤室付近の棚に OTC が配置されており、薬剤師が対応できるようになっていた。さらに、カウンセリングルーム付近には、血圧測定機も設置されていた。処方せんを受け付けた場合は、薬剤師はケアプランシートを使用して効率的に患者情報を確認できるようになっていた。（資料 4）

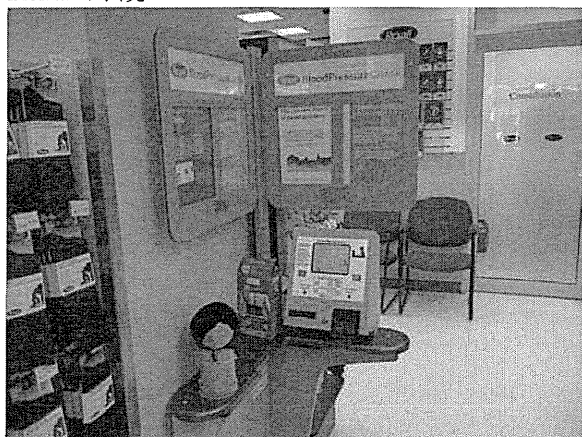
この地域は、ドラッグストアの激戦区で、価格競争が激しいとのことであった。OTC 棚の黄ラベルからもその様子が伺えた。



Rexall 外観



処方せん受付カウンター



血圧測定器 カウンセリングルーム（奥）



薬剤師がいなくても販売できる OTC 等の陳列

(2) 病院内の薬局

アルバータ大学附属病院内に設置されており、外来患者を対応している薬局であった。処方せん受付カウンターと受渡カウンターがわかれて設置されており、OTC は受渡カウンター側に少し配置されている程度であった。

当該病院に通院する腎移植患者はアルバータ州で最も多いことから、免疫抑制剤の取り扱い数が非常に多いことが、当該薬局の特徴の一つとして挙げられる。また、州からの資金援助を受けて、遠方に住む移植患者や HIV 患者に対して、バスを用いた患者宅への薬の配達を行っていた。

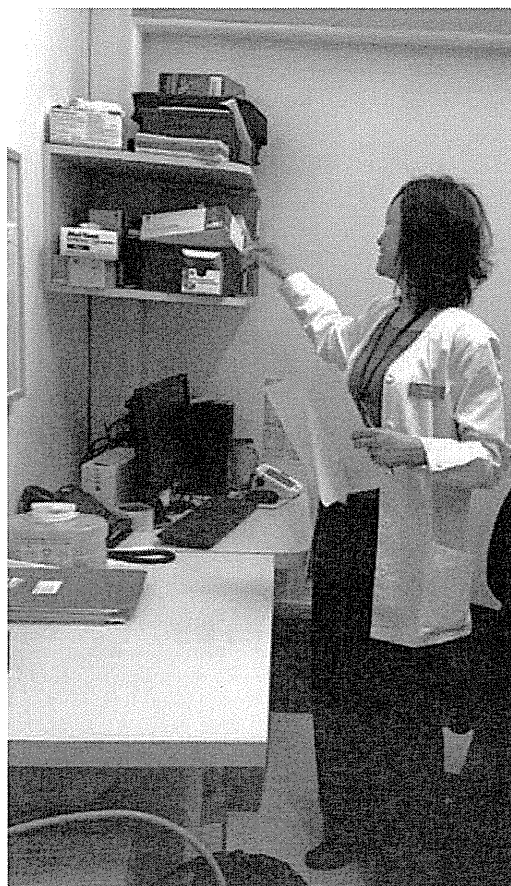
受渡カウンターの隣に設置されたカウンセリングルームは、主にインフルエンザの予防接種やデバイスの使用方法説明などに使われているとのことだった。



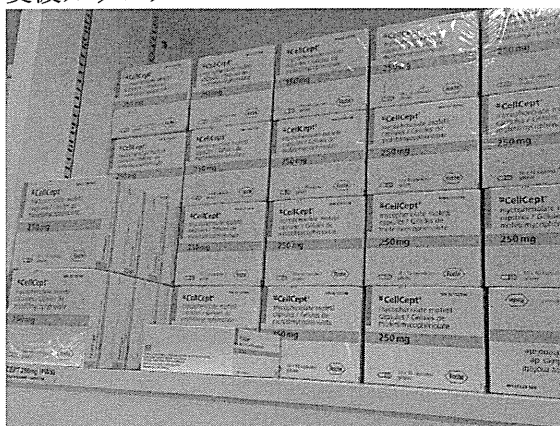
処方せん受付カウンター



受渡カウンター



カウンセリングルーム内



免疫抑制剤の棚

5. 考察

サスカチュワン大学では、OTCのために確保されている時間を効率的に使用して、OTC教育が実施されていた。それぞれの授業で取り上げられたトピックが違うため、授業間の内容部分における直接的な繋がりには確認できなかったが、教育手法においては机上で学んだ内容を実務で活用できるようになるための工夫が感じられた。これは1名のOTC教育担当者が、一貫した目標を持って実施していること、また、実務経験が豊富で実用的な内容をより多く取り入れているためと思われた。今回の調査の中では、医療器具に対する講義が特に印象的だった。薬局店頭で経験することが多い医療器具の販売に関する講義・演習が日本ではおそらくほとんど実施されておらず、できるところから対応する必要性を感じた。

また、アルバータ大学では、OTCに特化した授業ばかりではなかったが、同じトピックにおける講義・演習を視察することができた。授業中の学生の質問から、薬学的考え方における成長度や、教員の指示の与えかたが、学生のレディネスに合わせてより深くなっていることを感じられた。ひとつのトピックを継続的に実施することで、知識も深まり、また実用的な考え方が自然にできるようになっているからと考えられる。

今回、短期間ではあったが、薬科大学の授業に参加する形で視察できたため、教員と学生のやりとりなど、資料だけではわからない手法なども知ることができた。これらをすぐに日本のOTC教育に活かすことは、現段階では簡単ではないが、今後の薬学・薬剤師教育にも役立てられる部分が多いと感じた。

問題点としては、日本におけるOTC教育の専門家がないこと、現場におけるOTC販売の経験のある薬剤師の大学教育への参画などが考えられるが、OTCに興味のある大学教員(主に実務家教員)とOTC取り扱いの経験のある薬剤師との連携が必須となるであろう。

最近のカナダの調査によれば、薬剤師がOTC選択に関わることで、顧客の満足度は上昇するが、臨床的な転帰には薬剤師の関わりはあまり関係ないことが紹介された。薬剤師がOTCを通してどのように患者と関係を持てば、満足度とともに、臨床的な転帰を改善することができるかをさらにしょうさいに検討していく臨床研究の発展も望まれる。

OTC Tests and Devices

Ph 365
J Taylor
2011 T2

A. Trends in Self-Testing

- diabetic urine tests (the *seventies*) automatic defibrillators (*today*)
- chronic disease management

B. Thermometers

C. Pregnancy

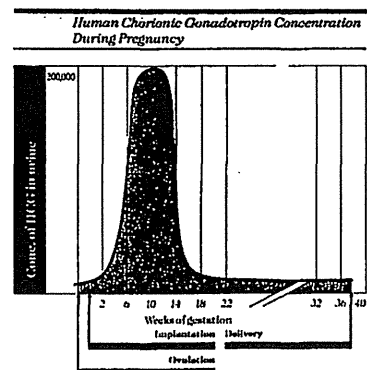
- developing placenta produces HCG

- how to carry out a test:

- accuracy of tests

- false positives / negatives are possible

waiting too long to read the test
doing test too soon
insufficient contact onto strip
Profasi^R

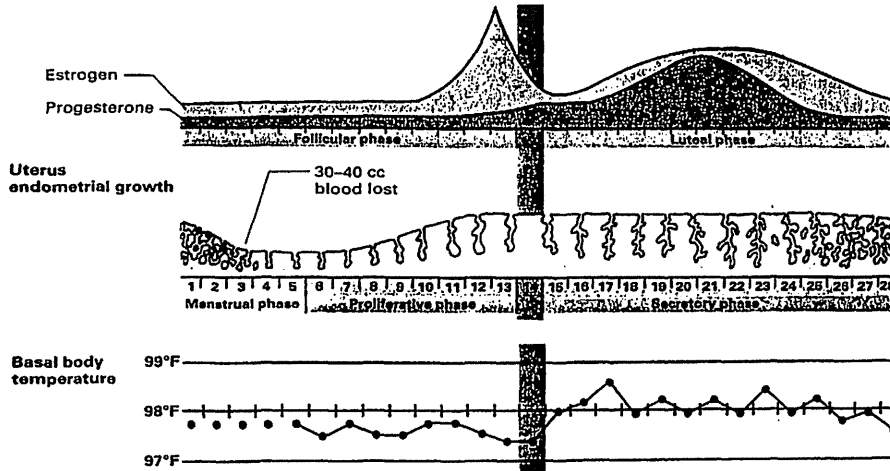


now it uses words!

www.youtube.com → Clearblue easy pregnancy test ad

D. Ovulation

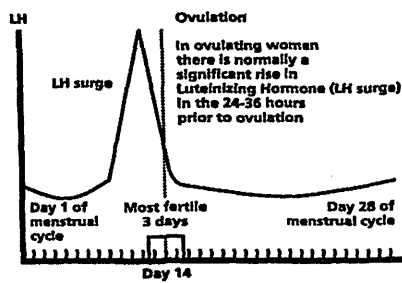
i) basal temp method



ii) method using LH levels

- LH increases dramatically 1-2 days before ovulation; this surge stimulates ovulation.

- how to carry out a test:



Sun	M	T	W	Th	F	Sat
		1	2	3	DAY 1 4 Period Start	5
6	7	8	9	10	11	12
13	Sun 14 testing					

Example: Mrs. Allen normally has her period every 28 days. She started her period on the 4th, so including that day, she counts forward 11 days and begins testing on the 14th.

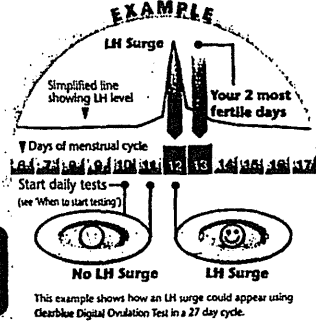
Clearblue DIGITAL OVULATION TEST

Before applying urine to the Test Stick it must be inserted into the Test Holder. Read the Instructions carefully before doing the Test.

How Clearblue Digital Ovulation Test works with you

Clearblue Digital Ovulation Test works by detecting the increase (surge) in the hormone called Luteinising Hormone (LH) in your urine. The LH surge occurs approximately 24-36 hours prior to the release of an egg from your ovaries - a process known as ovulation. You are at your most fertile on the day your LH surge is detected, and the day after.

Your 2 most fertile days begin from the time that Clearblue Digital Ovulation Test detects your LH surge. Make love at any time in the next 48 hours to maximise your chances of becoming pregnant.



When to start testing

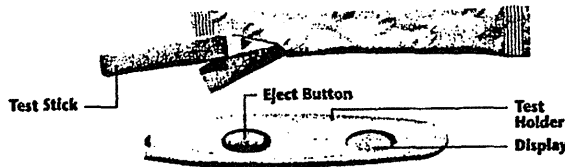
The day that the LH surge occurs varies from woman to woman and from one cycle to another. To have the best chance of detecting your LH surge with the number of Test Sticks provided in this pack, you need to know your usual cycle length. To work out your cycle length, count the day your period starts (first day of full menstrual flow) as Day 1, and continue counting through to the day before your next period starts. The number of days is your cycle length. If you do not know your usual cycle length, refer to Question 1 overleaf.

Use the table below to work out the day you should start testing. You can test any time of day, but it should be at about the same time each day (many women find it most convenient first thing in the morning). It is important that you have not urinated for at least 4 hours before testing, and you should avoid excessive fluid intake before testing.

Length of your cycle (days)	21 or less	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41 or more
Count the first day of your period as Day 1, start testing on the day shown under your cycle length.	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	23	23

1 When you are ready to test...

- Remove the Test Stick from the foil wrapper.
- Before applying urine to the Test Stick it must be inserted into the Test Holder. Follow the steps below.



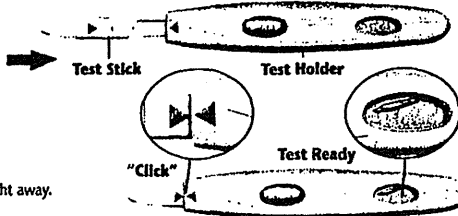
2 Remove the Cap

- Find the Pink Arrow on the Test Stick.



3 Assemble the Test

- Find the Pink Arrow on the Test Holder.
- Line up both Pink Arrows.
- Insert the Test Stick into the Test Holder until it clicks into place and the Test Ready symbol appears.
- Do not use until the Test Ready symbol appears.
- When the Test Ready symbol appears do the Test straight away.

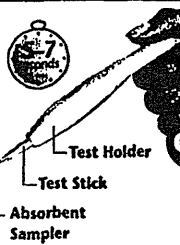


- If the Test Ready symbol does not appear OR if the symbol has disappeared eject the Test Stick and re-insert it carefully.
- If the symbol still does not appear refer to Question 19 overleaf.

4 Do the Test

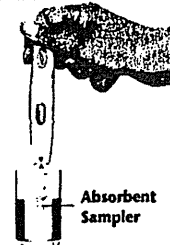
- With the Test Ready symbol showing on the Display...
- Either test directly in your urine stream.

- Place just the Absorbent Sampler, pointing downwards in your urine stream for 5-7 seconds.
- Take care not to get the Test Holder wet.



- Or test a sample of your urine collected in a clean, dry container.

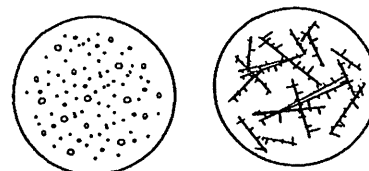
- Dip just the Absorbent Sampler in your collected urine sample for 15 seconds.



iii) OV-watch system

- transdermal chloride ion levels

iv) saliva fertility indicator

**E. Home Cholesterol Machines****Accutrend GC**

Fast, easy and reliable determination of blood glucose and cholesterol in physicians' office, for patient self-testing or for screening campaigns.

Accutrend GC is most suitable for accurate on-site screening, diagnosis, and therapy monitoring of metabolic disorders.

Test strips:

Accutrend Glucose, Accutrend Cholesterol.

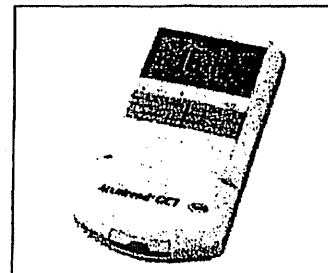
**Accutrend GCT**

Fast, easy and reliable determination of blood glucose, cholesterol, and triglycerides in the physicians' office or for home use by patients.

Accutrend GCT is most suitable for accurate on-site screening, diagnosis, and therapy monitoring of metabolic disorders and cardiovascular risk factors.

Test strips:

Accutrend Glucose, Accutrend Cholesterol, Accutrend Triglycerides.

**Ease of use**

Accutrend GC determines the two lead parameters of metabolic disorders – glucose and cholesterol – on one whole blood system. Accutrend GCT adds the determination of triglycerides as easily as measuring glucose and cholesterol. The two systems greatly facilitate health checks and support therapeutic recommendations in Primary Care.

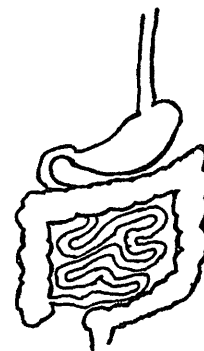
Fast results

Both systems allow fast on-the-spot determination of blood glucose (12 seconds), cholesterol (3 minutes), and triglycerides (< 3 minutes; Accutrend GCT only) directly from capillary blood. Blood does not need to be wiped off after application.

F. Fecal occult blood

A fecal occult blood test (FOBT) is done to:

- To detect the presence of blood in the stool. Blood in the stool may be caused by hemorrhoids, anal fissure, colon polyps, colorectal cancer, and many other conditions that cause bleeding in the gastrointestinal tract.
- To screen for cancer of the colon and rectum (colorectal cancer). FOBT is a useful screening tool for colorectal cancer because cancerous tissue and precancerous polyps are more likely to bleed than normal colon tissue. Polyps and cancers appear to grow slowly and they may not bleed all the time. Sometimes blood in the stool is the only symptom of colon cancer. A FOBT increases the chances that bleeding will be detected. Once detected, additional tests can be done to diagnose the cause of the bleeding. It is important to contact your health professional if a home test detects blood in your stool. Home screening for colon cancer does not replace the need for a regular examination by your health professional.
- To help evaluate the possible cause of abdominal pain.
- To evaluate the cause of **anemia**.
- As part of a routine physical examination for those at increased risk for colon cancer, especially after the age of 50.



Instructions for Using ColoCARE

- Remove all cleaners and deodorizers from the toilet bowl and tank before testing
- Flush the toilet twice (if color remains, flush until it disappears)
- Following the bowel movement, do not throw toilet paper into the toilet
- Perform the test within five minutes of the bowel movement
- Remove a ColoCARE test pad from the protective foil pouch
- Fold the open end of the pouch and tape closed
- Handle the pad by the edges, and place pad in center of toilet with the printed side up
- Observe pad for 30 seconds, looking for the development of a blue-green color on the large reaction site
- One small reaction site must turn blue or green, and the other must remain colorless; if either does not perform as expected, the ColoCARE should be discarded
- Record test results on the reply card
- Flush the pad with the bowel movement
- Repeat the procedure for the next two consecutive bowel movements
- Mail the reply card to your physician
- Consult physician immediately if the large reaction site is blue or green

■ Only 31% of women and 42% of men over 50 have ever been screened for colon cancer with sigmoidoscopy or colonoscopy, according to a study of 129,000 people by the American Cancer Society. Starting at age 50 people should get a sigmoidoscopy every five years or colonoscopy every ten years; those at high risk should begin testing earlier. Colon cancer is the second leading cause of cancer deaths in the U.S.

Berkeley June 2005

G. Blood Pressure

Home blood pressure monitoring among Canadian adults with hypertension: Results from a 2009 survey Can J Cardiol May 2010

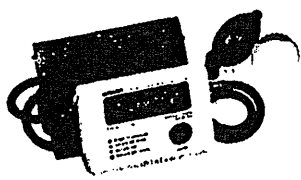
Canadians with hypertension are recommended to use home blood pressure monitoring on a regular basis. Respondents to a 2009 survey who reported a diagnosis of hypertension (n = 6142) were asked about blood pressure monitoring practices. Among those with hypertension, 45.9% monitor their own blood pressure at home, 29.7% received health professional instruction, and 35.9% shared the results with their health professional. However, fewer than one in six Canadian adults diagnosed with hypertension monitor their own blood pressure at home regularly.

Tips on home bp testing

1. Is the cuff the proper size for your arm? Pharmacies will have Small, Medium, and Large versions of machines to indicate the size of cuff. A measurement will be needed in the pharmacy to get a match.
2. No tight clothing on the arm (watch for rolled-up sleeves that are constrictive).
3. Rest quietly for a few minutes before taking your blood pressure. A person shouldn't even talk before and during the measurement and no one should talk to you.
4. No smoking or coffee prior to measuring.
5. A full bladder may cause your blood pressure to be high, so empty it before proceeding.
6. The arm should be at heart level; rest it on a table when taking the reading.
7. Sit with your back supported, feet flat on the floor, legs uncrossed.
8. Take 3 readings and write them all down.
9. After purchasing a machine, have it initially checked at your doctor's office, then every 6 months to make sure it is accurate.

Category	Systolic (mm Hg)		Diastolic (mm Hg)
Optimal	less than 120	and	less than 80
Normal	less than 130	and	less than 85
High	130 - 139	or	85 - 89
Hypertension			
Stage 1	140 - 159	or	90 - 99
Stage 2	160 - 179	or	100 - 109
Stage 3	180 or higher	or	110 or higher

Based on the average of two or more readings at each of two or more visits after screening.

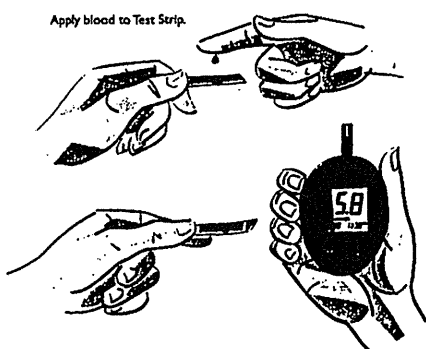


Q I check my blood pressure regularly with a home-monitoring device, and I take two measurements each time. I've noticed that my blood pressure drops between measurements, so I record the lower reading. Usually, my doctor takes only one measurement. Should I ask him to take two? →

A Blood pressure measurements recorded even within a few minutes of each other may be different, as in your case. The probable reason is that once you relax, your blood pressure drops. Potentially, the same thing can happen in your doctor's office. If you notice a large difference at home between your first and second readings, it may be a good idea for your doctor to check twice, especially if you're a candidate for additional pressure-controlling medications. But your first, high reading may be a sign of "white-coat hypertension"—nervousness or anxiety in your doctor's office, which will drive up your blood pressure. Though often dismissed, this response can be a warning that your risk of heart disease is a little bit higher than it is for someone with steadier readings. Medications may be appropriate.

HN Apr 2009

H. Blood Glucose



Apply blood to Test Strip.

Insert Test Strip, Read Results.

	Ideal (normal - nondiabetic)	Optimal* (Target)	Suboptimal† (action may be required)	Inadequate ‡(action required)
FPG	3.8-6.1	4-7	7.1-10	>10
PG 1-2h pc	4.4-7	5-11	11.1-14	>14

I. Others

- HIV (involves mailing a sample in the USA)
- Yeast infection (Vagisil Screening Kit)
- Others in development (there is a push for use in self-care of chronic disease mgt)

K. Pharmacy Programs using Tests / Legal Issues

Preventive services for healthy adults

These are the major screening tests (that is, routine tests for people without symptoms). Our advice is based largely on the recommendations of the U.S. Preventive Services Task Force. Medicare and many insurers cover nearly all of these services. *Infants, children, and pregnant women need other kinds of preventive care not described here.* For full articles, go to our website, www.WellnessLetter.com.

SERVICE	WHO NEEDS	HOW OFTEN	COMMENTS
Blood pressure measurement (to detect hypertension)	All adults.	Once every 2 years for those with normal blood pressure.	More frequently for those over 60 and anyone with readings over 120/80.
Cholesterol measurement (including HDL, LDL, and triglycerides)	All adults.	Once every 5 years. More often if any results are abnormal or there are other risk factors.	Those at high risk for heart disease need medical advice about lifestyle changes and possibly drug therapy.
Pap test (for early detection of cervical cancer)	All women, starting within 3 years of becoming sexually active, no later than age 21.	Annually until age 30. After 30, if 3 consecutive tests are normal, once every 2 to 3 years, unless a woman smokes or has multiple sex partners or other risk factors.	Women 70 and over who have had normal recent results can stop being screened, unless they are at high risk. Women who have had their cervix removed do not need to be tested.
Breast cancer screening (mammography)	All women 50 and over; those at higher risk need to start earlier.	Annually.	Certain women at high risk should also have annual MRI scans starting at 30. Clinical breast exams are important, too—consult your doctor.
Colorectal cancer screening (fecal occult blood test, sigmoidoscopy, colonoscopy)	Everyone 50 and over; earlier for those at high risk.	Occult blood test annually plus sigmoidoscopy every 5 years. Or preferably colonoscopy every 10 years.	X-ray with barium enema or CT ("virtual") colonoscopy may also be done. Those with abnormal results need more frequent colonoscopies.
Prostate cancer screening (prostate specific antigen, or PSA, test; digital rectal exam, or DRE)	Black men and those with family history of prostate cancer, starting at age 40. For others, DRE, and possibly PSA, starting at 50.	DRE annually; PSA on professional advice.	Routine PSA screening for all men remains controversial. Discuss with your doctor.
Diabetes screening (fasting blood glucose test)	Everyone 45 and older; earlier for those at high risk.	Every 2 to 3 years.	Blacks, Hispanics, Asians, Native Americans, obese people, and those with a strong family history need more frequent screening, starting at age 30.
Thyroid disease screening	Women 50 and over; those with high cholesterol, family history, or other risk factors.	On professional advice.	Routine screening remains controversial. Talk to your doctor about risk factors.
Bone-density testing	Women 65 and over; younger women at high risk for bone loss; men at high risk.	On professional advice.	Risk factors include being small-boned, sedentary, a heavy drinker, or a smoker, or having a personal or family history of osteoporosis.
Chlamydia screening	Sexually active women 24 and younger; older women at increased risk (such as multiple partners).	Annually, or more often.	Men who have unprotected sex should also be tested.
Glaucoma screening	People at high risk: those over 65, very nearsighted, or diabetic; blacks over 40; those with family history of glaucoma.	On professional advice of eye specialist.	Benefits of routine screening remain unproven. Still, most eye specialists advise testing all adults 40 and over every 3 to 5 years.
Abdominal aortic aneurysm (ultrasound)	Men 65 to 75 who ever smoked (at least 100 cigarettes lifetime).	Once.	Some experts think women 65 to 75 who smoked and anyone over 75 who smoked should also be tested.
Dental checkup	All adults.	Every 6 months, or on professional advice.	Should include cleaning and exam for oral cancer.

Which tests can you trust?

People use home medical tests for many reasons. Some, as instructed by their doctors, use the tests to manage a disease, such as diabetes (blood sugar testing) or hypertension (blood pressure readings). For those without insurance, the tests may be cheaper than those given at a doctor's office. Others want the privacy of a home test—to test for HIV, for instance, or hepatitis C—because they worry about the ramifications of a positive result (disqualification for insurance, for instance, or possibly discrimination). In addition, home tests can be convenient and can give people a sense of control over their health care.

But home tests pose potential dangers. They may not be accurate, or users may misunderstand the results. A false-positive result can be psychologically traumatizing; a false-negative one can be dangerously reassuring. And by avoiding doctors, people may not get needed medical attention and counseling about their disease or condition.

As a general rule, home tests should be used in conjunction with professional medical care, not as a replacement for it. Some of the tests below should be avoided altogether. Look for home tests that are FDA-approved, and call the company if it's unclear from the packaging. Discuss the tests with a health-care professional—your doctor, a nurse practitioner, or a physician assistant.

Blood pressure monitors

These can be valuable for people with hypertension—to see how they are responding to medication, for instance, or if blood pressure rises at certain times of the day or under certain circumstances. A diagnosis of hypertension, however, should be made by a health professional—don't buy a monitor to try to diagnose yourself. The devices are especially useful for those with "white-coat" hypertension (that is, their blood pressure rises abnormally in the doctor's office). There are several kinds of monitors; not all are reliable, and price is no guide to quality. A health professional can recommend a model, teach you how to use it correctly, and check to see if the one you buy is accurate. *Consumer Reports* (June 2003) evaluated monitors and found that those that automatically inflate around the arm are best.

Blood sugar (glucose) monitors

People with diabetes, especially those on insulin, can use one of these devices to monitor and thus closely control their blood sugar levels (via medication and diet). A health professional can help devise a schedule for testing. Some monitors can even be linked to hand-held computer/organizers to record results over several days. Most monitors are simple and of high quality, usually requiring just a single drop of blood. Medicare and many insurers pay for the monitor and supplies. Urine tests are not as accurate.

Cholesterol

For most of these tests, you prick your finger and put some blood on a test strip; after a few minutes you compare the result with a chart, or else you mail the strip to a lab. Some models are digital. There are many reasons *not* to buy these tests or devices. Many are not accurate. Moreover, most measure only total cholesterol, not the LDL ("bad") and HDL ("good") types, which are crucial. Get your cholesterol checked by a doctor; the test should be part of an overall evaluation of your risk of coronary artery disease. Cholesterol testing does not need to be done regularly or often, so there's seldom need for home testing.

UC Berkeley Wellness Letter, February 2005

Allergies

There are several home tests to check for sensitivity to the 10 most common allergens, such as ragweed, cat dander, milk, mold, and wheat. If you think you're allergic to one of these allergens, these tests may be helpful. Some use the same type of antibody test used by allergists; you put a few drops of blood in a tube and mail it to a lab. In general, it's better to get tested by a qualified allergist, who can do more extensive testing and will make sure it really is an allergy (not a respiratory infection, for example), and if it is, recommend treatment.

HIV

There is one FDA-approved home HIV test, made by Home Access, which is similar to the test you'd get from your doctor. You prick your finger, put blood on a card, and send it to a lab. Its advantages: anonymity (you're identified only by a number) and speed (results in seven days, or three days for an extra charge). It's sold in most drugstores and can be ordered by phone (800-HIV-TEST) or online (www.homeaccess.com); it costs about \$50. Don't try any of the other home HIV kits, since they may not be reliable.

Home Access provides counseling and medical referrals over the phone. If the results are negative (that is, you are not infected), you'll be told about the "window" period—the time when you may be HIV-infected but still have a negative result. Testing in a doctor's office or clinic may be preferable, however, since it →

Tests to avoid

■ **Antioxidants.** Some relatively new home tests claim to measure antioxidant levels in your body. (Antioxidants, such as vitamins C and E, help mop up cell-damaging free radicals and may, in theory at least, help prevent chronic diseases.) You send a small amount of urine to a lab for testing. Such tests may not be accurate, and would not provide any useful information. The makers of these test kits usually try to sell you supplements to correct your "imbalances." This is the same trick used by companies offering to test your hair to detect diseases or nutritional deficiencies (there are no vitamins in hair, and though there are minerals, it's of no practical value to measure them).

■ **Alzheimer's.** Sold in pharmacies and on the Internet, the most common test comes with 12 "scratch and sniff" odor strips. If you're wrong about four or more of the smells, you're supposed to consult your doctor. There may be a link between loss of smell and Alzheimer's, but this remains unproven. The FDA has not approved the test, and no currently accepted diagnostic criteria for Alzheimer's include evaluation of smell. Many factors other than Alzheimer's can impair smell, including smoking, certain drugs and medical conditions, and individual differences in sensitivity to odors.

■ **Menopause.** Like those for pregnancy, home tests for menopause measure hormones in urine. They serve no purpose. Menopause occurs when a woman (not using the Pill or other hormones) has not had menstrual periods for a year. You don't need a test to tell you that. Before menopause the test is unreliable because the hormone it measures fluctuates, so you might test positive one day and negative the next, or even a few hours later. And a positive reading doesn't mean you can't become pregnant. If you have irregular periods, don't try to self-diagnose menopause with this test.

→ allows face-to-face contact with a health professional. Public testing sites charge little or nothing for a test and also allow you to remain anonymous.

Hepatitis C

There's one FDA-approved test, also made by Home Access. You may be at risk for the virus if you received a blood transfusion before July 1992, ever used intravenous drugs, or have had unsafe sex. During the first few months after infection, however, you will not test positive. To test yourself, you draw blood from your finger and send it to a lab; you remain anonymous (you're identified only by a number) and get the results by phone. If you test positive, the manufacturer provides counseling by phone and can refer you to a physician knowledgeable about the disease. Sold in drugstores for about \$70, the test is also available by mail (call 888-888-HEPC).

Pregnancy

Most home pregnancy tests, which test urine for a hormone produced when an embryo implants in the uterine wall, are fairly accurate, especially if you wait 10 minutes before reading the results. The test is more accurate when done at least a week after you miss your period, rather than the day after, as is sometimes suggested. If you get a positive result, get confirmation by your doctor.

Ovulation

These tests detect peak fertility for women wishing to conceive. They detect a hormone in urine that peaks during ovulation. Even the best tests may miss ovulation in many women who do not produce much hormone. Ovulation may occur before or after the time period suggested by the kits. No harm in trying, but unnecessary for most couples trying to conceive.

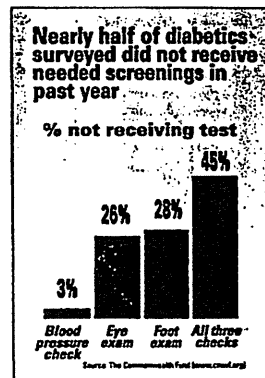
Colon cancer

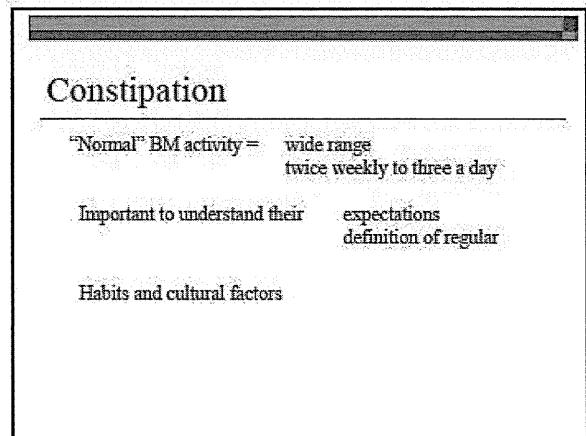
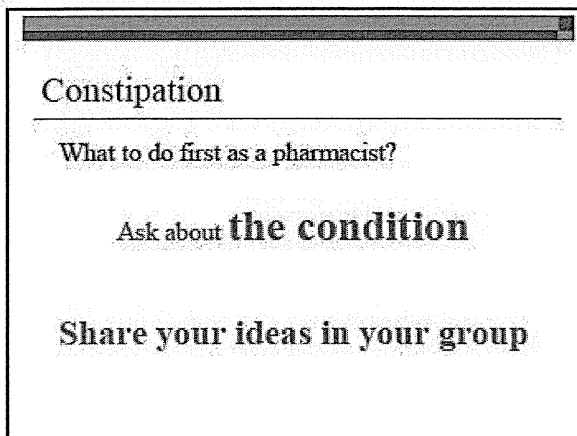
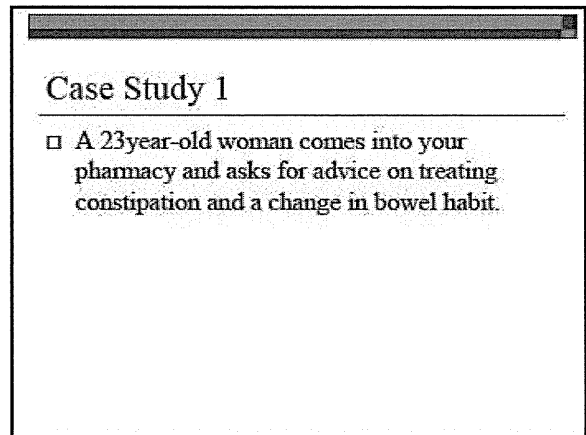
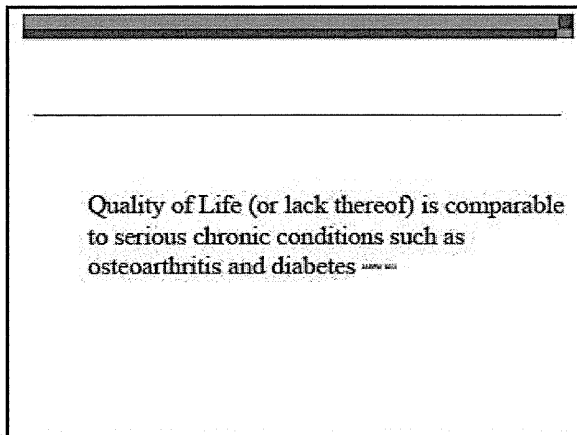
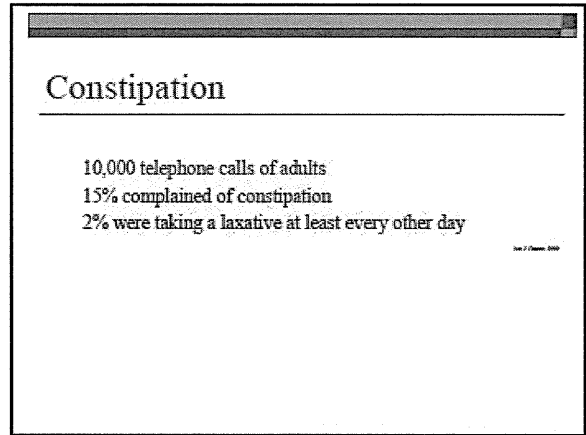
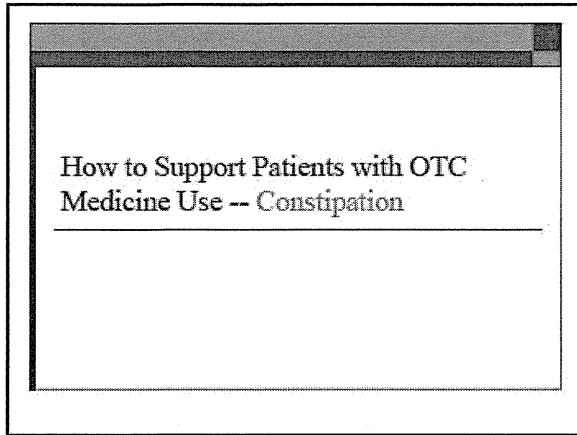
Fecal occult blood tests detect hidden blood in a stool sample (many cancers of the colon and rectum bleed). Usually your doctor gives you the kit; at home you smear small samples on a card and mail it to a lab or doctor's office for analysis. This test will miss many precancerous polyps and some cancers, and it produces some false-positives. But it's a good first step. *Don't* try to do the test on your own using one of the do-it-yourself tests sold in many drugstores and online, so that you can avoid the visit to the doctor. It is hard to read the results yourself, and you may miss having the option of further testing via sigmoidoscopy or colonoscopy.

Direct access testing








Many reputable labs offer a range of tests that can be done without a prescription. These range from men's and women's health profiles to tests for anemia, gout, STDs, and liver or thyroid disorders. If results are abnormal, the labs will usually refer you to a doctor. Insurance will not cover these tests when they are done without a doctor's approval. Some states outlaw this practice, while others are lenient or have partial restrictions. It's not a good idea to test yourself for conditions without input from your doctor, who will know your medical history and can put your symptoms and seemingly abnormal lab results in perspective.

By the way: Ever get a printout of a lab test from your doctor that you can't figure out when you get home? What is that test and what do those numbers mean? An excellent website, www.labtestsonline.org, can answer many of your questions. The site is sponsored by clinical laboratory groups and several diagnostic companies, but the content is noncommercial and written for consumers.





Bristol Stool Chart

Type 1		Separate hard lumps, like nuts (hard to pass)
Type 2		Sausage-shaped but lumpy
Type 3		Like a sausage but with cracks on its surface
Type 4		Like a sausage or snake, smooth and soft
Type 5		Soft blobs with clear-cut edges (passed easily)
Type 6		Fluffy pieces with ragged edges, a mushy stool
Type 7		Watery, no solid pieces, entirely liquid

Constipation

Emotions

Gastro-colic reflex

Acute issue or long-term problem?

Constipation

A part of aging?

- disease states
- drug causes
- immobility

Constipation

Red Flags ...

- unexplained new onset / worsening
- blood in stools
- weight loss, anorexia
- fever
- nausea + vomiting
- family history of IBD / colorectal cancer

Constipation





Next step ...


Figure out course of action for patient

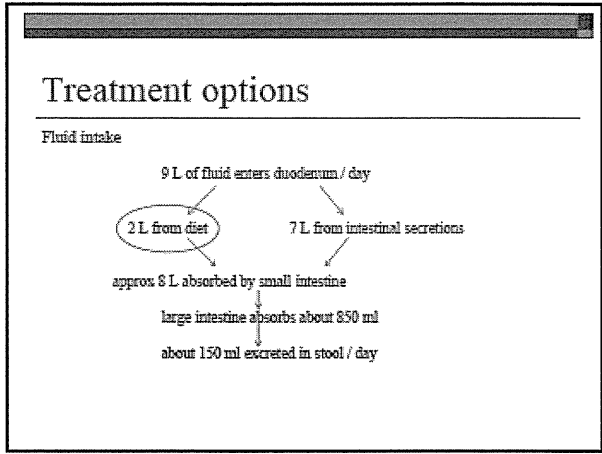
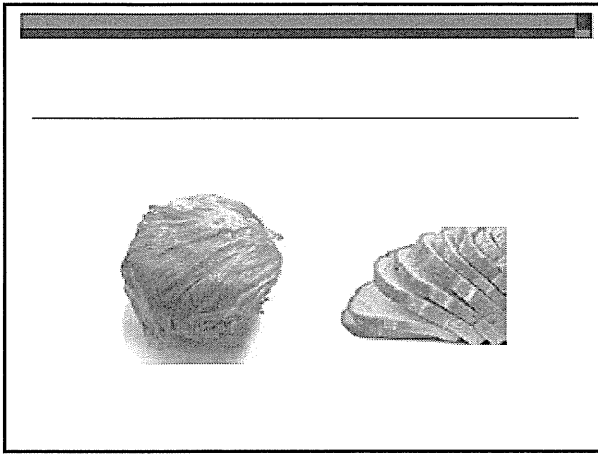
Share your ideas in your group

Treatment options

dietary prevention preferred

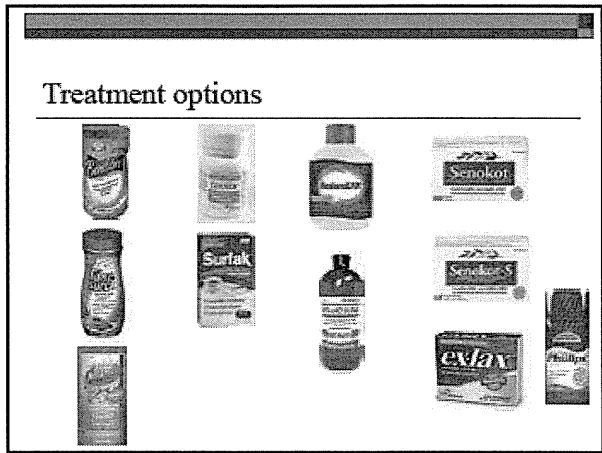









Value of exercise

Light (3 METS or 4-6 METS)	Moderate (3.5-5.9 METS or 4-7 METS)	Hard Vigorous (6-8 METS or 7-10 METS)
<ul style="list-style-type: none"> Walking slowly (1-2 mph) Cycling, stationary (50-90 W) Swimming, slow treading Conditioning exercise, light Swimming Golf, casual cart Fishing Tennis, sitting Coaching, power Home care, cancer, sweeping Mowing lawn, riding mower Home repair, carpentry 	<ul style="list-style-type: none"> Walking briskly (3-4 mph) Cycling for pleasure or 8-10 mph (10-15 mph) Swimming, moderate effort Conditioning exercise, general maintenance Racket sports, table tennis Soft, pulling cart or carrying clubs Fishing, strenuous Carpentry, heavy (20-25 mph) Home care, general cleaning Mowing lawn, power mower Home repair, painting 	<ul style="list-style-type: none"> Walking briskly uphill or with a load Cycling for pleasure or 10-15 mph Swimming, fast treading or pool Conditioning exercise, step aerobics, 40-1000 ft Racket sports, singles tennis, basketball Fishing in streams Carpentry, rapidly (25-30 mph) Mowing lawn, mowing lawn, hand mower



Treatment options

Bulk-Forming Agents

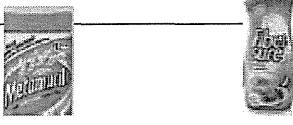
- drug of choice for prevention (but not always effective)

Treatment options

Bulk-Forming Agents

- types

- psyllium
- polycarbophil
- guar gum
- wheat dextran
- inulin
- methylcellulose
- bran



psyllium thickens OD-TID mix with H₂O lowers cholesterol

imlin (prebiotic) non-thickening OD-TID can add to fluid or food no less? cholesterol effect


Treatment options

Transit time

- normal ~60%
 - usually respond to fiber supp / laxatives
- slow ~15%
 - tend not to respond to fiber / laxatives


Treatment options

Stool softeners



docosate Na 100 mg docosate Ca 240 mg docosate Na 50 mg + senna

Treatment options




Mineral oil Agarol agar + MO

Treatment options

Osmotic

- non-absorbable cations and anions
- remains in the gut → highly osmotic → draws water in




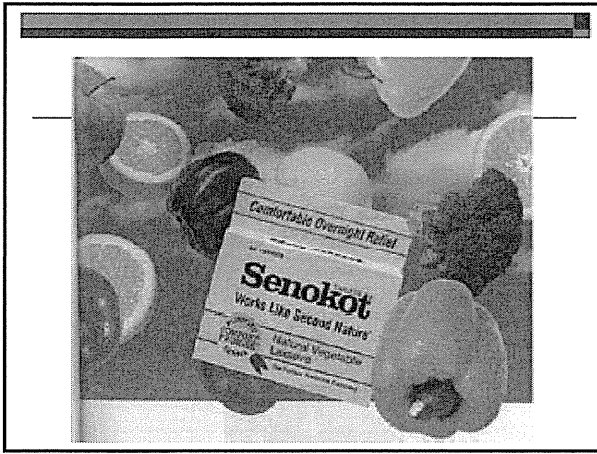
Treatment options

PEG 3350

Label states... <7 d of use unless MD

not for kids <18 unless MD








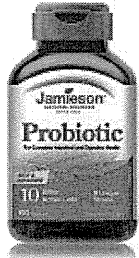
Stimulant laxatives

Warnings: AHFS 2012

- Habit-forming.
- Potentially serious toxicity with chronic use.
- Chronic use may produce hypokalemia, dehydration.
- Laxative dependence, chronic constipation, loss of normal bowel function.

 Predictable, overnight relief within 6 to 12 hours		
bisacodyl 5 mg 1-3 tabs OD	senna 15 mg Ext. Strength = 35 mg 2 tabs Q-BID	senna 8.6 mg 2-4 tabs HS max 4 tabs BID


Probiotics




Constipation

□ How much of all this material actually gets covered during a typical interaction?

1.5 min



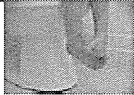

10 min



Constipation

Toddlers ...

- toilet training problems
- too busy to poop
- withholding behaviour → *family conflict*
anal fissures
bathrooms in strange places
- dietary changes / intake inconsistency

Constipation

Toddlers ...

more fluids? fiber (age + 5)? exercise?



Constipation

Toddlers ...

every practitioner has his/her own list for what approach is OKAY or Not OKAY!!

senna / MOM / suppository / PEG 3350

Suggested Maintenance Medications for Long-Term with Functional Constipation*

Medications
Oral administration
Lactulose
10 g (10 mL) to 2 mL per kg per day given once daily or
divided twice daily

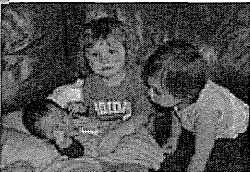
Oral administration
Lactulose (syrup) 10 g (10 mL) to 2 mL per kg per day
divided twice daily

Oral administration
Polyethylene glycol powder (PEG 3350) 1 g per kg per day
divided twice daily

Oral administration
Polyethylene glycol powder (PEG 3350) 1 g per kg per day
divided twice daily

Oral administration
Polyethylene glycol powder (PEG 3350) 1 g per kg per day
divided twice daily

Rectal administration
Suppository
10 mg (10 mL) to 20 mg (20 mL) per day given once
or twice daily



3 years ... 15kg

1 g/kg means 15 g a day

Constipation

Next Step ...

What to do if this all does not work?

Share your ideas in your group

資料3 アルバータ大学の実習時に使用されていたフィードバックシート

Pharmacy – Simulation Lab Patient Care Evaluation/Feedback Form Topic 20/Case 1

Place ID sticker here

All rights reserved. No part of this form may be reproduced or altered in any form, by any means, without prior written permission from the author(s).

Process of care:		Proficiency	COMMENTS
1. OPEN INTERACTION <input type="checkbox"/> Greet and identify the patient (2 identifiers) <input type="checkbox"/> Identify self as pharmacist <input type="checkbox"/> Explain purpose and/or time needed <input type="checkbox"/> Solicits agenda and/or clarifies chief complaint (BP review)		<input type="checkbox"/> Unsatisfactory <input type="checkbox"/> Needs Imp. <input type="checkbox"/> Satisfactory <input type="checkbox"/> Outstanding	
2. ASSESSMENT OF PATIENT <input type="checkbox"/> Uses prescription and chart to guide a relevant history (BP log)		a) General Hx <input type="checkbox"/> past medical history <input type="checkbox"/> Social Hx <input type="checkbox"/> Functional Hx <input type="checkbox"/> Family Hx (Mother+ CVA)	<input type="checkbox"/> Unsatisfactory <input type="checkbox"/> Needs Imp. <input type="checkbox"/> Satisfactory <input type="checkbox"/> Outstanding
TASK – DID THE STUDENT ASSESS HOME BP MEASUREMENT TECHNIQUE? YES/NO – WHY?			
b) Explores HPI: (See SP Script for details) <input type="checkbox"/> Symptoms <input type="checkbox"/> Timing <input type="checkbox"/> Location <input type="checkbox"/> Associated symptoms <input type="checkbox"/> Quality/Severity <input type="checkbox"/> Setting <input type="checkbox"/> Modifying Factors ("red flags")		BP Measurement Technique <input type="checkbox"/> Where <input type="checkbox"/> How <input type="checkbox"/> When <input type="checkbox"/> How many	<input type="checkbox"/> Unsatisfactory <input type="checkbox"/> Needs Imp. <input type="checkbox"/> Satisfactory <input type="checkbox"/> Outstanding
c) Drug Hx – Pt Understanding/Behavior • Purpose Question ("why?") • Direction Question ("how? how long?") • Monitoring Question ("works?") • Explores responses		Drug – Hx: <input type="checkbox"/> OTC – list: <input type="checkbox"/> CAM – list: <input type="checkbox"/> Indicates current or past medications <input type="checkbox"/> Allergies/adverse effects:	<input type="checkbox"/> Unsatisfactory <input type="checkbox"/> Needs Imp. <input type="checkbox"/> Satisfactory <input type="checkbox"/> Outstanding
3. CARE PLAN			
a) Decision <input type="checkbox"/> Provides clinically appropriate care plan <input type="checkbox"/> Explains problem clearly (correct level of understanding) (determine improper use) <input type="checkbox"/> Presents options ! <input type="checkbox"/> Pros & Cons <input type="checkbox"/> Solicit participation in identifying therapy/health goal(s)			<input type="checkbox"/> Unsatisfactory <input type="checkbox"/> Needs Imp. <input type="checkbox"/> Satisfactory <input type="checkbox"/> Outstanding
b) Education <input type="checkbox"/> Provides proper home BP technique to patient <input type="checkbox"/> Adjust type/amount of education <input type="checkbox"/> Provides clear info <input type="checkbox"/> Verifies understanding with open-ended questions			<input type="checkbox"/> Unsatisfactory <input type="checkbox"/> Needs Imp. <input type="checkbox"/> Satisfactory <input type="checkbox"/> Outstanding
TASK: PROPER BP MEASUREMENT TECHNIQUE GIVEN TO PATIENT (see SP script) ? YES/NO-WHY?			
4. MONITORING: <input type="checkbox"/> Linked to goals/outcomes of care plan <input type="checkbox"/> Parameters are individualized to patient Needs		<input type="checkbox"/> positive/neutral outcome(s) discussed <input type="checkbox"/> management: <input type="checkbox"/> negative outcome(s) discussed <input type="checkbox"/> management:	<input type="checkbox"/> Unsatisfactory <input type="checkbox"/> Needs Imp. <input type="checkbox"/> Satisfactory <input type="checkbox"/> Outstanding
TASK-DID STUDENT EXPLAIN WHAT THE PATIENT SHOULD BE MONITORING FOR? YES/NO-WHY? (i.e. BP<135/85, can't as bc SBP>180 or SBP hypertension, see RCP)			
5. PLAN FOR FOLLOW-UP <input type="checkbox"/> Appropriate scenario (who and how) <input type="checkbox"/> Clear timeframe established (when) <input type="checkbox"/> (Make arrangements for patient's BP log to be reviewed in 1 week.)			<input type="checkbox"/> Unsatisfactory <input type="checkbox"/> Needs Imp. <input type="checkbox"/> Satisfactory <input type="checkbox"/> Outstanding
6. CLOSE INTERACTION <input type="checkbox"/> Summarized key information <input type="checkbox"/> Asks if patient has further questions <input type="checkbox"/> Structured			
7. RESPONDS TO PATIENT'S FEELINGS/CONCERNS: <input type="checkbox"/> Acknowledges verbal communication or emotional issue (Supportive of pt's concern about BP readings; explains inaccuracy of BP log this in a non-demeaning manner)			<input type="checkbox"/> Unsatisfactory <input type="checkbox"/> Needs Imp. <input type="checkbox"/> Satisfactory <input type="checkbox"/> Outstanding

Unsatisfactory-0 (Missed or Caused Patient Harm); Needs Improvement-2 (Partially completes criteria); Satisfactory-3 (Completes all RELEVANT criteria); Outstanding-4 (3 plus strong communication skills demonstrated through patient rapport, listening, tailoring information, support etc.)

LAB FACILITATOR:

Please use a "SB" or "SP" in the boxes for good use of skills and "Strikeout" for mechanical or inappropriate skill use