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This document is divided into two parts

1) The HIGHLIGHTS AND EDITORIAL COMMENTS SECTION

HIGHLIGHTS condenses the contents of studies, and allows a quick review of pertinent points of each article.

EDITORIAL COMMENTS are the editor's assessments of the clinical practicality of articles based on his long-term reviews of the current literature and his 25-year publication of Practical Pointers.

2) The **FULL ABSTRACTS** section is designed as a reference. It presents structured summaries of the contents of articles in much more detail.

I hope you will find *Practical Pointers* interesting and helpful. The complete content of all issues for the past 10 years can be accessed at www.practicalpointers.org

Richard T. James Jr. M.D.

Editor/Publisher.

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HIGHLIGHTS AND EDITORIAL COMMENTS DECEMBER 2011

Physicians Today Appear Much More Comfortable Acknowledging The Placebo Effect

12-1 LESSONS FROM RECENT RESEARCH ABOUT THE PLACEBO EFFECT—FROM ART

TO SCIENCE

Medicine has been of 2 minds regarding the placebo effect in clinical practice: 1) The placebo is disparaged as an inert and deceptive intervention intended to please or placate the patient, but without potential to produce meaningful therapeutic benefit; 2) Placebo effects are touted as having the power to produce substantial symptomatic relief across a wide range of medical conditions.

Until recently, scientific data that elucidate the mechanisms of placebo effects and evaluate their potential to significantly enhance patient care have been lacking. During the past decades there have been advances in scientific research on the placebo effect, paving the way for evidence-based techniques for promoting placebo responses in clinical practice in ethically appropriate ways. Practitioner surveys indicate that physicians today appear much more comfortable acknowledging the placebo effect as a therapeutic tool consistent with a scientific understanding of the mind-body connection.

Recent research on the placebo effect has been conducted with much more methodological rigor than in older studies. This allows better discrimination between true placebo responses and confounding variables such as natural variation in symptom severity. Neuroimaging studies have demonstrated release of endogenous opioids and dopamine when study participants receive placebos and then experience therapeutic responses.

Experimental comparisons of open administration vs hidden administration of analgesic and antianxiety medications consistently show a greater effect if patients know they were receiving the drug compared with the same dosage given by a hidden infusion pump. This suggests a substantial proportion of symptom relief from the drug is derived from the putative effect of the clinician encounter, which augments the inherent pharmacologic properties.

In patients with irritable bowel syndrome, sham acupuncture administered impersonally resulted in a greater therapeutic response than no treatment. When a warm interpersonal relationship was added to the acupuncture, therapeutic benefits increased.

Two intertwining psychological mechanisms are thought to underlie placebo effects—expectancy and conditioning. Positive beliefs about future outcomes, especially when connected with an intervention recommended by a clinician, may trigger those outcomes. Much of medicine consists of repeated rituals that may create conditioned responses, which can be reactivated in the future by placing the patient in a similar environment. Conditioning creates positive expectations.

Promoting placebo responses no longer falls within the black box of the "art of medicine". It has become amenable to scientific experimentation.

How can the engaged compassionate practitioner best stimulate placebo effects? The first step is to identify the explicit goal of patient encounters and relationships. Rather than denying medicine's ritual elements as incompatible with, or incidental to, scientific aspirations, clinicians can capitalize on the common rituals of daily practice. For example, rather than advising the patient to get more exercise, a physician can write a prescription for exercise on a prescription pad, thus using ritual in a way designed to elicit a placebo response and increase adherence. By means of conditioning, the physician taps latent meaning that has become associated with past healing events. Good ways to enhance everyday encounters include: inviting and listening carefully to the patient's story of illness; offering a satisfactory explanation for the patient's distress; expressing care and concern; communicating positive expectations for therapy and helping the patient to feel more in control of life in the face of illness. Each of these activities does double duty. Listening is part of good history taking. Explaining the illness and proposing positive ways to deal with it are part of the therapy and patient education; and contribute to shared decision making. Care and concern can be expressed by the clinician's attitude and demeanor.

Some practitioners appear willing to prescribe unnecessary (*eg, homeopathic*) and potentially toxic (*eg ayurvedic*) medications for their placebo effects. Appreciation of the mind-body science would reassure practitioners that they need not prescribe such placebo treatments to alter the meaning in a way that promotes positive outcomes. But what about low-risk interventions such as acupuncture to treat low back pain? Today, if rigorous clinical trial evidence shows acupuncture to be better than no treatment, or no better than usual care, but no better than placebo, the treatment is often summarily dismissed. A question for future research is whether such modalities can be recommended consistent with informed consent.

Recent research challenges the prior belief that placebo treatments must be prescribed deceptively in order to work. Prescribing sugar pills openly as helpful placebos, taking advantage of the ritual of therapy, may be a superior alternative for some patients than a watch-and-wait strategy. Some would argue that there are many other ways to invoke placebo effects via therapeutic rituals and positive communication and relationships. Relying on pharmacologically inert pills is largely unnecessary and may reinforce deleterious habits of overmedication.

The time has come to translate the science of the placebo effect and knowledge regarding techniques for promoting placebo responses into clinical practice and medical education. This promises to bridge the

long-standing gap between the scientific and humanistic orientation of modern medicine with a potentially important improvement in patient care.

JAMA December 21, 2011; 306: 2612-13 Editorial, first author Howard Brody, University of Texas, Galveston

I enjoyed this short editorial and learned from it. It expanded my concept of the placebo.

The following article comments that in past times patients paid for medical care that consisted mainly of kindness.

Dr. Wertmen was our family doctor in the 1920s when I was child living in a small town in Pennsylvania. We rarely went to his office. He almost always came to our house when my parents called him to care for my various childhood illnesses. After performing a ritual examining and dispensing kindness and reassurance, he prescribed pills, which he took out of his big black bag. He would then sit down and chat with the family for a while. He was considered part of the family.

We always felt reassured and got well, Some clinicians are much more skilled at dispensing placebos than others.

I had not thought of careful listening and warm attentive relationships as being placebos. We have used placebos throughout our careers without knowing it.

Individual Patients Have Virtually No Interest In Costs They Do Not Bear.

12-2 WHAT PATIENTS REALLY WANT FROM HEALTH CARE

The health care industry is perhaps the most scrutinized sector of the economy. Policy makers, politicians, academics, and the public share concern about the state of health care. But each of these constituencies has a different perspective.

The supply side of the economy focuses on minimizing costs, expanding sales, and maximizing profits. The demand side considers consumers' preferences, income, and alternative purchases.

Health care is different. In the nid-20th century, patients' aversion to risk of large health care expenses gave rise to a market for insurance, thereby separating patients from the true costs of care at the point of service delivery. This in turn greatly expanded the demand for health care, resulting in cost escalation, which gave rise to government involvement in many ways.

Decades later, the government is struggling to contain the "best" of health care costs by setting priorities.

This commentary focuses on what people want from health care services and rates these preferences from highest to lowest. Because preferences vary in health care, like preferences in every sector, the characterizations described may not apply to all.

What the Public Wants Most: (Not necessarily in order of importance. Ed.)

1. Restoring Health When Ill:

Patients want a health care system that responds when needed; that is, when they develop signs and symptoms causing pain, disability, or anxiety. What they want most is to be restored to a state of good health, however it is defined. They simply want to be better. Some patients understand the concept of preventive medicine and want the health care system to provide services such as cancer screening. However, the majority of primary care patients focus on relieving illness and symptoms rather than disease prevention.

2. Timeliness:

Patients desire access to services in a timely fashion. While many patients delay seeking medical care, those who do not procrastinate want care immediately.

3. Kindness:

Patients want to be treated with kindness, empathy, and respect. In the days before health insurance, patients paid for care that consisted primarily of kindness.

4, Hope and Certainty:

Even if patients are in a state in which cure is exceedingly unlikely, they want to have hope and be offered options that might help. Patients are uncomfortable with uncertainty. They often request tests that may relieve anxiety. They, and their families, may feel guilty if they do not try to get better. They may accept active tests and treatment options even when the options are unlikely to help, especially at times of emotional vulnerability such as when death is near. Most of those who seek health care prefer active strategies. An extra test or two "in order to be sure" is often preferred to possibly missing something.

5. Continuity, Choice, and Coordination:

Patients want to build a relationship with a health care professional or a team in whom they have confidence, and have that person or team care for them in each episode of similar illness.

6. Private Room:

Patients want to be hospitalized in their own room with a bathroom.

7. No Out-of-pocket Costs:

Patients want to pay as little as possible from their own pocket at the point of service delivery. They also want assurance that insurance is always available to them.

8. The Best Medicine:

Patients want to know that the clinicians taking care of them are highly qualified. They do not want the physician's qualifications to be statistical. They prefer testimonials from other patients or clinicians they trust.

9. Medicine and Surgery:

Patients prefer treatments that require little effort on their part. Medications and surgical procedures are preferred over clinical stratagems that involve behavioral changes (eg, diet, smoking cessation, exercise).

Second Level Priorities:

1. Efficiency:

What patients mean by efficiency is that their time is not wasted. They do not like to wait hours for a scheduled appointment. Rapid scheduling of tests and reporting of results is important..

To policy analysts, efficiency means something different—effective delivery of the most value with the least resources.

2. Aggregate-Level Statistics:

Most patients care little about the average patient. They primarily care about themselves. Evidence that does, or does not, support the use of treatments based on large groups of people is of much less interest to patients than whether these treatments work in their specific case. Again, testimonials trump science. The lack of appreciation for evidence-based medicine explains why comparative effectiveness research is an easy target for politicians and interest groups who dislike the results of those efforts because the results may threaten their incomes or access to currently available care.

3. Equity:

It is generally recognized that all members of society should have the right to health care regardless of income. Most patients put equity lower on the priority list than whether they personally are receiving adequate health care services. Illness, like other stresses, inherently breeds selfishness.

4. Conflict of Interest:

Most patients would be disappointed to learn that some interventions are recommended partially to increase the income of the prescriber (physician or hospital). But most patients do not fundamentally care as long as the service helps make them better without increasing costs they have to bear.

Lower Priority:

1. Real Costs:

Individual patients have virtually no interest in costs they do not bear. Presenting patients with bills that are sent to insurance companies listing real costs or full charges is meaningless unless the patients face those charges.

2. Percent GNP Devoted to Health Care:

The amount of gross national product spent on health care is just a number and has absolutely no relevance for individual patients.

JAMA December 14, 2011;306:2500-01 "Commentary' by Allan S Detsky, University of Toronto, Ontario, Canada

I enjoyed this commentary. I abstracted it almost word-for-word. It clearly outlines the problems we have with health care.

One improvement primary care clinicians could make is to promptly report back to patients the results of test. A patient waiting for test results is an anxious patient.

"Battling Against Death Way Past The Point That Is Humane"

12-3 DEATH CAN BE YOUR FRIEND

Would you like to die the way your patients do, doctor?

Many will answer no.

Too many people are dying undignified, graceless deaths in hospital wards and intensive care units with doctors battling against death way past the point that is humane. Because too many doctors have forgotten that death is a friend, people are kept alive when all that makes life valuable has gone. Denying the inevitable comes with a heavy price. Doctors and patients need to adopt a much more positive attitude to death, to reduce suffering and costs.

Death is one of the two great events of our lives. Beyond childhood we must live with the certain knowledge of death. Until medicine began its unwinnable war against death, coming to terms with death was one of life's most important tasks. Ars Moriendi (The Art of Dying) from the early 15th century, was a best seller for 200 years.

"Tis the condition of your creation; death is a part of you and whilst you endeavor to evade it, you evade yourselves". "Give place to others, as others have given place to you." (Michael de Montaign 16th century)

"We are happier with death than we should be without it", (Sir Thomas Brown 17th century)

"Without death, there is no time, no growth, no change... If we avert our eyes from death, we also erode the delight of living. The less we sense death, the less we live." (Iona Heath)

This way of thinking seems to have been largely forgotten, or is ignored.

"In the past few decades, medical science has rendered obsolete centuries of experience, tradition, and language about mortality, and created a new difficulty for mankind: how to die." (Atul Gawande)

Death is a remarkably powerful force with undoubted benefits. But many social and personal responses to death is "Death now seems optional". As a consequence, huge sums of money are spent in the last months of life. There is intense pressure to license extremely expensive drugs that extend life for just a few weeks.

Denial of death is a major cause of rising health costs everywhere, but the damage may be much wider than simply to finance. "The reluctance to look death in the face I take to be the root cause of our 21st century American sorrow—socioeconomic and aesthetic as well as cultural and political." (Lewis Lapham)

Without death every birth would be a tragedy.

Warehouses for the dying:

Now, most of us die of complications of chronic incurable diseases. Death is very much the territory of doctors. Nobody is dying until the doctor says so. Increasing numbers of patients die in intensive care.

"I'm running a warehouse for the dying". "Only about a fifth of patients emerge alive from American intensive care units". (Atul Gawnade)

"Who benefits from the inventory of suffering gathered in Florida storage facilities?" (Lewis Lapham)

Ivan Illich argues that doctors became rich and influential in part because of their supposed ability to hold back death. And their right to preside over death. Modern medicine discourages making sense of dying in exchange for an implied, but false, promise of immortality.

Doctors should stop their efforts to save lives and start saving dignity.

BMJ December 24, 2011; 343: 1277-78 Editorial, first author Murray Enkin, McMaster University, Canada

I disagree. Not all blame rests on the medical profession. Our society has an aversion to death. To many, death should be avoided at all costs (if others are bearing the costs). Life should be prolonged as much as possible regardless of the age and condition of the patient. "Everything must be done."

Efforts to prolong life should depend on the probability of having a favorable outcome—a future productive and independent life. Our aim should be to prolong independent, free, joyful, healthy, and productive life as long as possible, and to shorten the time of despair, dependency and discomfort. Contrast an elderly demented patient fed with a stomach tube with a young seriously ill patient. Prolonging the life of the first patient gains nothing other than continued dependency and discomfort; for the young patient, efforts may lead to a prolonged productive life.

Is there a choice between prolonging life or prolonging suffering?

Society, I believe, is gradually coming to a better understanding of the end-of-life and opting for Hospice and palliative care, without efforts to prolong life. More elders are making advance directives and appointing heath-care power of attorney to be used if and when decision-making capacity is lost. All family members should be informed of these decisions, not only by receiving a copy of the document, but should also be verbally informed of the decision at family gatherings. This may avoid future misunderstandings and discord among family members. Some elders, while they maintain decision making capacity, may state emphatically: "Do not resuscitate." "Do not hospitalize."

Decisions regarding young persons are more difficult. Surrogates may always hope for the best, and believe there remains a chance of prolonging meaningful life.

12-4 CHOCOLATE CONSUMPTION AND CARDIOMETABOLIC DISORDERS

Cardiovascular disease (CVD) is largely preventable.

Diet is a key lifestyle factor in the prevention and control of CVD. Recent studies have suggested that chocolate consumption has a positive effect on health. It has antihypertensive, anti inflammatory, anti atherogenic, and antithrombitic effects as well as an influence on insulin sensitivity, endothelial function, and activation of nitric oxide. All of these factors may have beneficial effects in prevention of CVD.

This systematic review and meta-analysis evaluated the association between chocolate and risk of developing stroke, MI, heart failure, and diabetes.

The review found 7 studies of adults ($n = 114\ 009$ participants; age range 25 to 93) on the effects of the level of chocolate consumption on cardiovascular outcomes. For each study, the authors compared the group with the lowest consumption vs the group with the highest consumption.

All studies reported overall chocolate consumption based on food frequency questionnaires. Types of chocolate consumption included: chocolate bars, drinks, snacks, confectionary biscuits, desserts, and candy bars.

The authors used the highest and lowest categories to measure the association of chocolate consumption with cardiovascular disorders.

Follow-up ranged from 8 to 16 years.

Of the 7 studies, 5 (n = 14 875 participants with higher consumption) reported a significant inverse association between chocolate consumption and cardiovascular disorders. The remaining measure was the association of chocolate with heart failure, which showed no benefit.

Higher consumption was associated with about a third decrease in risk of cardiovascular disorders—37% for any CVD (relative risk 0.67) and 29% for stroke.

Caution is needed in interpretation of observational studies. And for other potentially harmful aspects of commercially available chocolate: energy density (about 500 kcal/100 grams), weight gain, dyslipidemia, and diabetes. High sugar and fat content should be considered. The articles included in this analysis did not provide information needed to evaluate any of these factors.

This systematic review is the first to pull together studies evaluating the associations of chocolate with actual clinical events (not intermediate biomarkers). Experimental evidence (randomized, controlled trials) will be needed before any level of causality can be inferred from existing findings, and before residual confounding can be excluded.

Conclusion: Although over consumption of cocoa products and chocolate can have harmful effects, existing studies generally agree on the potential beneficial association between chocolate consumption and risk of CVD. This study indicates that higher levels of chocolate consumption might be associated with a one-third reduction in risk of developing CVD. Further experimental studies are required to confirm a potentially beneficial effect of chocolate consumption.

(Read the full abstract for details and the citation. Ed)

The cocoa bean (also termed cacao) is the fruit of the Theobroma cacao tree. The seeds are dried and defatted (cocoa butter removed) to produce the dark bitter cocoa powder, which is the basis of "chocolate". All of the putative benefits of "chocolate" are contained in cocoa powder. (Source: Wikpedia)

The article was based on what is commonly called chocolate—eg, chocolate bars and candy. "Chocolate" is processed from cacao powder by adding fat and sugar, which may reduce benefits of the pure cocoa.

A generous serving of a Hershey chocolate bar (36 grams) contains 190 Kcal, 7 grams of fat (30% saturated) and 20 grams of carbohydrate.

Hershey's cocoa (5 grams; a serving size) contains little fat, carbohydrate, and sodium.

This is a provocative study—certainly not conclusive. Interventions recommended with enthusiasm in the medical literature and to the public, sometimes have a way of being discouraged, often after years of additional observation.

Meanwhile, enjoy your chocolate.

Providing The Best Care At The Best Price – Every 3 years

12-5 MAKING SENSE OF THE OF THE NEWER CERVICAL-CANCER SCREENING GUIDELINES

Between 2009-2011, expert panels were reconvened to evaluate the evidence and issue new guidelines for cervical cancer (**CC**) screening. Although there were some differences of opinions and interpretation, there was much agreement and opportunity to use the existing evidence to maintain a high quality CC prevention program that also addresses cost concerns.

Age to start screening:

For average-risk (immuno- competent) women, begin screening at age 21. (CC is rare before that age.) Then screen every 3 years.

Testing frequency:

Studies consistently show that, for previously well-screened healthy women age 30 and over, the interval between Pap smears can be lengthened to 3 years without significantly increasing risk of CC. The goal is to obtain at least 2 consecutive normal Pap results during this period.

Human papilloma virus (HPV) testing:

All guidelines agree that HPV testing has no role in adolescents. HPV testing should be performed in women over age 21 only if the Pap test revealed atypical squamous cells of undetermined significance (an approach referred to as reflex testing). Recommendations for co-testing (both Pap and HPV) vary between authorities: 1) recommended, but no more than every 3 years; 2) allowed, but no more than every 3 years; 3) insufficient data to recommend. However, it seems reasonable to use Pap testing alone every 3 years unless the clinician seeks reassurance when the patient has

an uncertain Pap history or impaired immune status, or may have difficulty in complying with returning every 3 years.

When to stop screening:

There is general agreement that in well-screened, low-risk women with no history of cancer or high grade pre-cancerous lesions, there comes a time when additional screening confers little benefit. The agreed age is 65. In women who have undergone a hysterectomy, all guidelines agree that, if there is no history of cancer or dysplasia, Pap testing may be discontinued.

Screening after HPV vaccination:

Same as when unvaccinated.

Unscreened populations:

Increased screening in these patients will reduce incidence of CC. Reaching out to patients who face cultural, language, or educational barriers, as well as those who consult only occasionally, is important. They must have appropriate screening.

Health care is a limited resource. Providing the best care at the best price will become increasingly important. Different experts may interpret data differently, and emphasize different results. Even with the best guidelines, some clinical judgment and personal attention to each patient remains necessary. (Read the full abstract for details and the citation. Ed.)

I believe this an adequate direction at present for the Primary Care Clinician. Undoubtedly, it will change over the years.

I found it interesting that HPV vaccination makes little difference in screening.

The article suggests further pathways for those with more complicated findings. Most of these patients would be referred to gynecologists.

Patients attending primary care do so at irregular intervals. Most clinicians would take the opportunity to screen at the time the patient returns.

Patient preference will make a difference.

FULL ABSTRACTS DECEMBER 2011

12-4 CHOCOLATE CONSUMPTION AND CARDIOMETABOLIC DISORDERS

Cardiovascular disease (CVD) is largely preventable.

Diet is a key lifestyle factor in the prevention and control of CVD. Recent studies have suggested that chocolate consumption has a positive effect on health. It has antihypertensive, anti inflammatory, anti atherogenic, and antithrombitic effects as well as an influence on insulin sensitivity, endothelial function, and activation of nitric oxide. All of these factors may have beneficial effects in prevention of CVD.

However, despite evidence on intermediate factors for CVD, it is not clear whether chocolate benefits clinical cardiovascular outcomes such as myocardial infarction (MI) and stroke.

This systematic review and meta-analysis evaluated the association between chocolate and risk of developing stroke, MI, heart failure, and diabetes.

STUDY

- 1. The review found 7 studies of adults (n = 114 009 participants; age range 25 to 93) on the effects of the level of chocolate consumption on cardiovascular outcomes. For each study, the authors compared the group with the lowest consumption vs the group with the highest consumption.
- 2. All studies reported overall chocolate consumption based on food frequency questionnaires. Dark and white chocolate were not reported separately.
- 3. Types of chocolate consumption included: chocolate bars, drinks, snacks, confectionary biscuits, desserts, and candy bars.
- 4. Studies reported consumption in a different manner: 1) never, once a month to less than once a week, and once a week or more; 2) less than once and once a week or more; 3) never, less than once a week, once a week, and more than once a week; 4) none, 1-3 / month, 1-2 / week, 3-6 / week to over once a day; and 5) consumption ranged from 1.7 grams per day to 7.5 grams per day.
- Considering the heterogeneity of reporting and measuring consumption, the authors used the highest and lowest categories to measure the association of chocolate consumption with cardiovascular disorders.
- 6. Follow-up ranged from 8 to 16 years. All studies were funded by public institutions.

RESULTS

1. Of the 7 studies, 5 (n = 14875 participants with higher consumption) reported a significant

inverse association between chocolate consumption and cardiovascular disorders. Of 13 measures of association, 12 reported a beneficial association of higher chocolate consumption level on the prevalence of cardiovascular disorders. The remaining measure was the association of chocolate with heart failure, which showed no benefit.

- 2. All measures of association were adjusted for age, sex, BMI, physical activity, smoking, dietary factors, and education.
- 3. Higher consumption was associated with about a third decrease in risk of cardiovascular disorders—37% for any CVD (relative risk 0.67) and 29% for stroke.
- 4. Only one study found a beneficial association with diabetes.
- 5. The authors reported no evidence of publication bias.

DISCUSSION

- 1. In this meta-analysis, higher levels of chocolate consumption were associated with a reduction of about a third in the risk of CVD. But no reduction in risk of heart failure.
- 2. Five of the 7 studies included in the meta-analysis reported a significant reduction even after adjustment for potential confounder, including age, physical activity, BMI, smoking, dietary factors, education and drug use.
- 3. Although the authors did not find any randomized controlled trials evaluating the effects of chocolate, they believe their findings corroborate those of previous meta-analyses related to risk factors for CVD. These favorable effects probably accrue through increasing the bioavailability of nitric oxide, which might lead to improvement in endothelial function, and beneficial effects on BP, platelet function, insulin resistance, and lipids.
- 4. Caution is needed in interpretation of observational studies. And for other potentially harmful aspects of commercially available chocolate: energy density (about 500 kcal/100 grams), weight gain, dyslipidemia, and diabetes. High sugar and fat content should be considered. The articles included in this analysis did not provide information needed to evaluate any of these factors.
- 5. The small numbers of patients reported, with and without established CVD, prevented any evaluation of association of chocolate consumption with primary or secondary prevention. Other studies have reported that beneficial effects are similar in both groups.
- 6. The study found no relation between chocolate consumption and the metabolic syndrome.
- 7. This systematic review is the first to pull together studies evaluating the associations of chocolate

with actual clinical events (not intermediate biomarkers). Experimental evidence (randomized, controlled trials) will be needed before any level of causality can be inferred from existing findings, and before residual confounding can be excluded.

8. It is imperative to assess the effects of different types of chocolate, as well as the measurement and amount. Given the heterogeneity of studies, it will not be possible to establish a clear dose-response relationship between chocolate and CVD.

CONCUSSION

Although over consumption of cocoa products and chocolate can have harmful effects, existing studies generally agree on the potential beneficial association between chocolate consumption and risk of CVD.

This study indicates that higher levels of chocolate consumption might be associated with a one-third reduction in risk of developing CVD.

Further experimental studies are required to confirm a potentially beneficial effect of chocolate consumption.

BMJ 2011 ;343:d44488 doi; 10.1136/bmj.d4488 First author Adriana Buitrago-Lopez, University of Cambridge, Cambridge, UK

A short version of the study appeared in BMJ October 1, 2011; 343: 679

Providing The Best Care At The Best Price—Every 3 Years

12-5 MAKING SENSE OF THE OF THE NEWER CERVICAL-CANCER SCREENING GUIDELINES

Over the past 60 years, mortality from cervical cancer (**CC**) has dropped by 70% due to screening programs. Although the sensitivity of the Pap smear is poor (about 50%-60%), the frequency of repeat examinations make it likely that an abnormality missed on one examination will be found on the next.

Between 2009-2011, expert panels¹ were reconvened to evaluate the evidence and issue new guidelines. Although there were some differences of opinion and interpretation, there was much agreement and opportunity to use the existing evidence to maintain a high quality CC prevention program that also addresses cost concerns.

CC is rare before age 20. It then increases significantly until age 25-30. Most CC detected by screening are largely curable. In younger women with early disease, less-radical fertility-sparing procedures can be curable.

Age to start screening:

For average-risk (immuno- competent) women, begin screening at age 21. (CC is rare before that age.) Eliminating earlier screening averts over-diagnosis in young women due to transient cervical changes, which the immune system will clear, and averts painful, costly and possibly harmful interventions.

Testing frequency:

Studies consistently show that, for previously well-screened healthy women age 30 and over, the interval between Pap smears can be lengthened to 3 years without significantly increasing risk of CC. But, when screening takes place every 5 years, or when women with abnormal smears are not correctly triaged and treated, cancer rates increase. For women age 21 to 30, the optimum frequency is less well studied. Given the sensitivity of any one single smear, the goal is to obtain at least 2 consecutive normal Pap results during this period.

Human papilloma virus (HPV) testing:

All guidelines agree that HPV testing has no role in adolescents and should be performed in women age 21-30 and those over age 30 only if the Pap test revealed atypical squamous cells of undetermined significance (an approach referred to as reflex testing).

The experts disagree on whether the evidence supports HPV co-testing with a Pap test for women over age 30. The USPSTF argues that Pap testing alone every 3 years for these women is both safe and more cost-effective. It seems reasonable to use Pap testing alone every 3 years unless the clinician seeks reassurance when the patient has an uncertain Pap history or impaired immune status, or may have difficulty in complying with returning every 3 years. If so, the HPV test could be added, or the Pap interval shortened.

When to stop screening:

There is general agreement that in well-screened, low-risk women with no history of cancer or high grade pre-cancerous lesions, there comes a time when additional screening confers little benefit. The agreed age is 65. If the clinician cannot document a history of 3 normal Pap tests within the preceding 10 years, then a Pap should be obtained. In women who have undergone a hysterectomy, all guidelines agree that, if there is no history of cancer or dysplasia, Pap testing may be discontinued.

Women who have had CC or high-grade dysplasia:

In patients who have been treated for high-grade dysplasia, the risk of CC is increased by a factor of 3 for at least 20 years. But the risk of dying from CC is low since most cancers are diagnosed at an early stage. It has long been the standard of care to screen these patients annually. There are no data on whether more frequent testing leads to earlier CC diagnosis. Given that mortality remains low with current practice, all groups recommend screening this population for at least 20 years after treatment. Unscreened populations:

Increased screening in these patients will reduce incidence of CC. Reaching out to patients who face cultural, language, or educational barriers is important. And patients who come episodically for care must have appropriate screening.

Health care is a limited resource. Providing the best care at the best price will become increasingly important. Different experts may interpret data differently, and emphasize different results. Even with the best guidelines, some clinical judgment and personal attention to each patient remains necessary.

NEJM December 8, 2012 "Perspective" by Sarah Feldman, Brigham and Women's Hospital, Boston, Mass

1 American College of Obstetricians and Gynecologists; American Cancer Society; American Society for Colposcopy and Cervical Pathology; American Society of Clinical Pathology; US Preventive Services Task Force