Blood Shortage Remedy Is Found, But Blood Banks and Fed Resist It

By Jean E. Herskowitz

This year, America will end up a quarter million one-pint units of blood short of the amount Americans will need. This estimate is from the nonprofit National Blood Data Resource Center in Bethesda, Md., which says that about the same amount of blood is imported from abroad each year to fill Americans' needs.

As in the past, the new millennium year started with acute holiday shortages of donor blood in California and other parts of the nation (including New York), as Dan Rather reported on CBS. Blood was rationed; elective surgery curtailed.

Astonishingly, however, hematologists have discovered a way to end America's perennial blood shortage forever! But: It's not being used.

It is an untapped source: people whose blood contains excess iron. They are sufferers of hemochromatosis, iron overload disease. In this genetic disorder, the red cells absorb too much iron. Hematologist Victor Herbert, M.D., of the Veterans Affairs Medical Center in the Bronx, N.Y., an affiliate of Mount Sinai Medical Center, says:

"For genetic reasons, 12% of all Americans — including about one in five Irish-Americans and one in three African-Americans — have too much body iron."

Many Are Afflicted

People with moderate iron overload — heterozygotes (H) — absorb fifty percent more iron from their food than people without the disease, Herbert explains. People with homozygous hemochromatosis (HH) — the more serious form of the disease — can absorb up to three hundred percent more iron than normal. If untreated, they may suffer multiple-organ damage (including pancreas, liver and heart) — and death.

Treatment for this condition has been basically the same since the 1950s. It is called therapeutic phlebotomy — in essence, blood-letting.

"On average," writes hematologist Nancy C. Andrews, M.D., of Children's Hospital, Boston, in a December 23 review article in the New England Journal of Medicine, "men require phlebotomy three to four times per year, and women require it one to two times per year. When phlebotomy is instituted before endstage organ damage has occurred, patients can have a normal life expectancy and quality of life."

What, then, happens to the thousands of gallons of blood from hemochromatosis patients?

Value Is Perceived

For years, it's been poured down the drain, and most of it still is. U.S. Food and Drug Administration (FDA) regulations have required that this blood be stigmatized by labeling it "therapeutic phlebotomy — patient has iron overload." As the result, most of it is thrown out, thereby perpetuating blood shortages and the importation of foreign blood.

Herbert, who is a nutritionist as well as a hematologist, has long believed this blood is a valuable resource being wasted. While iron overload is dangerous, a rare or occasional pint of...
Follow-up

New EPA Ruling To Aid Monarchs

Public outcry over possible damage to monarch butterflies from corn that has been genetically manipulated to produce the insecticidal Bt toxin has moved a federal agency to act with uncharacteristic swiftness (PROBE, Jan.):

On January 14, only months after public hearings on bio-engineered foods, the Environmental Protection Agency (EPA) issued new rules to control planting of corn that carries the Bt gene to no more than half to about three-quarters of a cornfield. The agency wants the non-Bt corn to be planted around the field's periphery, so insects foraging in field-side milkweed and other plants will be buffered from the transgenic Bt corn plants. The EPA also asked companies producing Bt products to monitor for the appearance of Bt-resistant insects.

An EPA press advisory cited the need to "protect non-target insects, particularly the monarch butterfly." But a letter from EPA to manufacturers of Bt products speaks of a more long-term goal: to manage products using Bt, which is one of the best insecticides, to prolong its benefits. The set-asides of non-Bt crops called for in the new rules offer refuge for Bt-susceptible insects; this slows down the evolution of insects resistant to Bt.

Reactions from the research community have been mixed. On one hand, scientists are pleased that the EPA is positively managing the use of Bt. "It's marvelous," says plant scientist Ralph W. Hardy, Ph.D., president of the National Agricultural Biotechnology Council. "The EPA is trying to increase durability of use" of Bt products. But, he says, it would be better if impartial agencies, not the Bt manufacturers themselves, were monitored for Bt resistance.

Insects Outsmart Us

Cornell entomologist Anthony M. Shelton, Ph.D., a long-time researcher on Bt, agrees. "Insects always outsmart us by developing resistance," he says. EPA's ruling that establishes refuges for susceptible insects — a practice proven with crops other than corn — will help assure the long-term success of Bt products.

Scientists are dismayed, however, that politics, rather than science, speeded the EPA's decision. "This is an example of regulation by political pressure rather than regulation by science," says Jerry Caulder, Ph.D., CEO of Akkadix Corp. of La Jolla, Cal., a company involved in genome-based strategies to protect plants from pests. Adds May Berenbaum, Ph.D., chair of entomology at the University of Illinois, Urbana-Champaign, "They would save more monarchs by lowering the [highway] speed limit in monarch migratory zones." She is referring to the butterflies' annual route to their wintering site in Michoacan, in Central Mexico.

The real threat to the monarchs, Berenbaum says, is not Bt corn or any genetically manipulated organism. Rather, it is the loss of natural habitats to, for example, vacation homes and malls.

"It's astonishing the EPA moves so fast on this issue," Berenbaum told PROBE, "considering there is no documented harm to butterflies in the field because of Bt." However, she notes there are "mountains of data" documenting real damage to the environment because of loss of ozone and global warming — on which the EPA fails to move swiftly.

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The Nature Conservancy, in Arlington, Virginia, has bought lands in Arizona, Texas, New Mexico and California as refuges for migrating monarchs. So far, no refuges exist in the Central Mexican state where monarchs funnel in and spend the winter. The companies that manufacture Bt products could show their commitment to the butterflies by helping to pay for such protected areas in Mexico.

— Anne Simon Moffat

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Animal Rights Is Rolling in $$$$:

Figures released recently by the Animal Rights newspaper Animal People (Dec.) and the Foundation for Biomedical Research, an anti-Animal Rights group in Washington, show that the anti-research groups are getting richer. The data are from Internal Revenue Service filings for 1998.

"The budgets of most animal protection groups were higher in fiscal 1998, with almost across-the-board spending increases by major organizations and their smaller counterparts," the foundation says. "Animal protection groups have perfected the art of soliciting money from animal lovers, usually through direct-mail campaigns that appeal to donors' love of their own pets."

The budget for PETA (People for the Ethical Treatment of Animals), which is one of the most aggressively anti-research groups, jumped more than $4 million in fiscal '98, to exceed $14 million. Spending for the three major groups dedicated solely to stopping animal research — the American, National, and New England Anti-Vivisection Societies — had a combined budget of $4.5 million. By comparison, the Foundation for Biomedical Research, which defends animal research, was only one-sixth as large, at $759,000.

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Editor and Publisher

David R. Zimmerman

Circulation

Tom Gilgut

Comptroller

Veva H. Zimmerman

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Vitamin Maker Fools the Public With Footnotes

Back in November, we opened a press package from the VERIS Research Information Service, a not-for-profit international corporation with headquarters in LaGrange, Ill., near Chicago.

According to the enclosed press release, VERIS "strives to provide a responsible source of information on the role of nutrition in health, with emphasis on antioxidants, to health professionals . . . and health and nutrition/communicators worldwide" [emphasis added]. According to the enclosed, expensively-printed Carotenoids Fact Book, whose publication was the reason for the release, an antioxidant is a substance that can prevent or delay oxidation of a molecule.

Veris is the Latin root for truth.

The news release is headlined, oddly, "Americans Should Take Note: Carotenoids Rock[!]". The text explains: "That's a contemporary way of saying that scientific evidence suggests natural beta-carotene and other carotenoids offer benefits from eye health to cancer prevention." The booklet lists 80 references from the scientific literature.

The headline is also a convoluted and deniable way to make health claims that, in simple language, might be faulted by the Food and Drug Administration (FDA) or doctors for being untrue.

Commonly known antioxidants include vitamins A, C, and E, and the carotenoids, particularly beta-carotene, which, biochemically, is a vitamin A precursor. It is extracted from algae.

Claims long have been made by VERIS and others that antioxidants are effective preventives for heart attack, cancer, and a wide variety of other illnesses.

What VERIS did not reveal in its mailing, sent out by its PR company in LaGrange, Blitzy & Associates, is that VERIS is funded by a company that manufactures carotenoid and antioxidant raw materials. The company is called Cogins Nutrition and Health; until recently it was called the Henkel Co.

Having received much VERIS information in the past, a bit of which we have printed, we tossed the news release and the book, unopened, into the trash; we've heard much or all of it before.

No Benefit Found

Imagine our surprise, therefore, when a few days later we read a newspaper headline over an AP story by science writer Paul Recer that said: "Study Finds No Benefit For Nutrient Pill." Beta-carotene pills, once thought possibly to protect against heart disease and cancer, have flunked another test, the story said.

It went on to describe a major study in 40,000 women, half of whom took beta-carotene pills and half of whom took placebo, who were followed for up to four years. By then, there were 378 cancers in the beta-carotene group, and 369 in the placebo group. There were 42 heart attacks in the beta-carotene group, and 50 in the placebo group. Bottom line: Beta-carotene provided no statistically significant benefit against cancer or heart disease.

The AP report was based on a study published in the Journal of the National Cancer Institute (Dec. 15). We immediately phoned for a copy, wondering whether VERIS's booklet and news release blurring beta-carotene was mailed in anticipation of the Journal's knocking it as useless. (VERIS PR woman Caron Blitzy later assured us it was not.) We also thrashed through the trash to retrieve the VERIS material. We now read continued on following page

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* Beta-carotene subjects did worse than controls in three of these studies

Source: VERIS

Results of Scientific Studies on Carotenoids Value in Preventing Heart Disease

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* Significantly more deaths in beta-carotene group

Source: VERIS

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Carotenoids...
continued from previous page

it. We compared it to the NCI Journal article, which was written by well-known University of Miami public health specialist Charles H. Hennekeens, Ph.D., and several colleagues; the lead author is epidemiologist I-Min Lee, Sc.D.

Statements Are Compared

Here are some contrasting statements from VERIS on the one hand, and the NCI Journal article and an accompanying editorial on the other:

VERIS: “In a recent international conference on carotenoids held in Australia, studies showed that carotenoids might help signal cancer cells to stop growing.”

NCI: “Among apparently healthy women, there was no benefit or harm from beta-carotene supplementation for a limited period on the incidence of cancer . . . .”

“Only one previous large trial of beta-carotene has been conducted among persons at average risk for cancer. The findings from that trial, conducted among 22,071 physicians, [showed]

\[\text{The Times Says It}\]

“The NCI . . . has studied beta-carotene . . . but has failed to find anti-cancer effects.”

—Gina Kolata, in Science Times, Jan. 18

no statistically significant benefit or harm associated with beta-carotene supplementation after 12 years, [and] is similar to the findings in the present study.”

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VERIS: “Carotenoids . . . have been linked to a reduction in the risk of degenerative diseases such as . . . atherosclerosis and other forms of heart disease.”

NCI: “Among apparently healthy women, there was no benefit or harm from beta-carotene supplementation for a limited period on the incidence . . . of cardiovascular disease.”

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VERIS: “[E]vidence continues to accumulate on [the] protective effects of carotenoids in human health . . . . The Alliance for Aging Research . . . has recommended 10 to 30 mg. of beta-carotene per day for optimal health.”

NCI: “Clearly, focusing as readily as we did on beta-carotene was a mistake. Its implications were seriously incorrect with beta-carotene.”

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Some of the most striking benefits for carotenoids have come from a large interventional trial (30,000 participants) in Linxian, China, as reported in the NCI Journal in 1993 (vol. 85, pp. 1483-92.). The VERIS booklet reports that there was a statistically significant 9% reduction in over all deaths in Chinese people who took pills containing beta-carotene — but these pills also contained vitamin E and selenium. Most of the pills’ benefit came from a 13% reduction in cancer risk.

Problem: VERIS doesn’t say what part of this benefit, if any, came from the beta-carotene, and what part from the two other supplements. Problem: VERIS recounts some of the data in its meager list of three interventional trials for coronary heart disease, stating that mortality among the Chinese for “cerebrovascular disease,” which includes strokes — not, as VERIS claims in its heading, from “coronary heart disease” — was 10% lower among those who took the three supplements (not the beta-carotene alone).

Was Benefit Nutritional?

But there is one other, more serious problem: The Chinese in Linxian were — and probably still are — undernourished, compared to most Americans who buy carotenoids and other nutritional supplements. So it is very likely that the Chinese beta-carotene takers’ reduced mortality reflects a nutritional benefit — the correction of nutritional deficiencies — that would not occur in Americans. If so, the benefit was a normal physiologic response, not a block-busting antioxidant benefit, as VERIS and its press release imply.

More important, despite VERIS’ assertions, the long and expensive study of beta-carotene reveals a major procedural problem in the way micronutrients — of which there are thousands — are studied scientifically; reported in the press; and promoted to the public. Most studies are epidemiological: People who consume more of nutrient X have fewer cases of Y. (And so, you, too, should consume more X — which is conveniently packaged in our product!)

Confounding Is Seen

The rub, according to the editorial that ran in the same NCI Journal issue as I-Min Lee and her colleagues’ report, is that epidemiologic studies often include erroneous, confounding variables that skew the results; the poor nutrition in Linxian vis-à-vis the U.S. would be one such example. The Journal editorial headlined, bluntly, “Beta-carotene: A Miss for Epidemiology” says:

“Clearly, beta-carotene supplements do not prevent cancer.”

The editorialist is cancer control specialist James R. Marshall, Ph.D., of the University of Arizona, in Tucson. “The most plausible explanation for the present totality of the evidence,” Marshall adds, “is that the conclusions that we drew from the epidemiologic evidence were wrong . . . .”

Particularly, he says, confounding of the data may be a major fault. Much of the early optimism about beta-carotene was based on dietary studies which showed that people who ate beta-carotene-rich food were healthier. But the fruits and vegetables that naturally supply it contain hundreds of other nutrient substances. When these other substances were stripped away, and pure beta-carotene was provided in pills the benefits vanished.

“Clearly, focusing as readily as we did on beta-carotene was a mistake,” Marshall concludes. “Its implications were continued on page 8

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Probe
Poorly Researched Therapies Spur Delinquents’ Criminality

Careful research is required to find effective ways to prevent violence and other recidivistic behaviors.

This need is made dramatically clear in a review paper published last September in the American Psychologist, the profession’s official journal. The key finding: Putting bad kids in training programs with similarly bad peers, fire setters with fire setters for example — which has been a common treatment strategy — does not improve the kids’ behavior. Rather, it makes it worse!

Peer influences are the problem. Whether the problem is drinking, smoking, fighting, or disrupting school classes, the researchers say that putting similarly delinquent teenagers together for group counseling or other therapeutic interventions simply gives them an opportunity to lead each other deeper into delinquency. (As do prisons.)

Bad Eggs Cut Up Together

The authors, psychologists Thomas J. Dishian, Ph.D. and François Poulin, Ph.D., of the University of Oregon, in Eugene, and Temple University sociologist Joan McCord, Ph.D., say that the problem is what they call deviance training: Young rule-breakers re-enforce their worst impulses through conversation, laughter, and bonding during the ostensibly therapeutic group gatherings. Tapes made during experimental sessions showed much sly, behind-the-hand-bantering. This did not occur when non-delinquent boys were observed under similar conditions.

Boys who manifested “deviance training” when observed in experimental settings when they were 13 or 14 years old, had these additional problems two or three years later, Dishian and several co-workers have found in longitudinal studies:

- Increased risk of becoming a substance abuser
- Increased risk of self-reported delinquency
- Increased self-reported and police-reported violent behavior

These sobering short-term findings have been confirmed, over the long haul, by lifetime studies of high-risk kids and criminal behavior. The Psychologist’s authors summarize findings of a Boston area investigation, the Cambridge-Somerville Youth Study (CSYS), started a half-century ago. Boys were treated from age 10 to age 16:

Counselors encouraged their participation in local community groups, took the boys to sporting events, taught many of them how to drive, helped them obtain jobs, and served their families in a variety of ways.

A comparison with a control group of untreated boys, just after the interventions ended, showed neither benefit nor detriment from these intensive interventions. But thirty years later, matters were clear-cut, in a follow-up study by American Psychologist author McCord and others.

Bad outcomes — early death, criminal convictions, alcoholism, or psychiatric impairments like schizophrenia — were twice as common in delinquents who had been treated than in control delinquents who had not. Among disadvantaged boys who were sent to ordinary summer camps as part of the project’s intervention in their lives, the results were especially dire. Those who went to the middle-class camps two or more summers were ten times more likely to turn out bad than were similarly delinquent boys who weren’t sent to camp. The review authors say:

The comparison of outcomes among matched pairs of boys shows that although none of the groups benefited from treatment, most of the damaging effects of the CSYS program appeared among boys who had been sent to summer camp more than once, and who turned out considerably worse than their matched mates.

There is a better way, Dishian told PROBE by phone: “Try to deal with the kids where they’re at, rather than send them away.”

This of course requires mobilization of family and community resources — a difficult, but not an impossible task. Nevertheless, the west coast psychologist said, aggregating and segregating delinquents still is “one of the major strategies” in dealing with delinquents.

Rehabilitation methods can be studied, Dishian added. And these studies — as with juvenile gun violence — can lead to more successful interventions.

D & D = Danger

Both depression and delinquency are predictors that a teenager will start smoking. But only delinquency is a predictor that the kid will progress to heavier smoking.

These new finding are contained in an abstract for a scientific presentation at a conference on methods to control smoking. It is set for this month in Arlington Va; the sponsor is the Society for Research into Nicotine and Tobacco. The report’s first author is behavioral researcher Elizabeth E. Lloyd, Ph.D., of the Miriam Hospital in Providence, R.I.

Her new findings come from a study of 14,522 teenagers who were interviewed twice, several months apart for the National Longitudinal Study of Adolescent Health.

“Increasingly, it is clear that smoking and delinquency are both personal and social problems, and that they are both largely determined by the social environment in which we live,” Lloyd said.

Lloyd and her co-workers report: “A positive linear relationship existed between smoking stage [from never smoked, through experimentation, to regular smoker] at Time 1, and measures of depression and delinquency at both Time 1 and Time 2.” Lloyd and her co-workers report. But, “only delinquency predicted smoking progression.”

If the Rhode Island analysts’ data are confirmed, they say, researchers may be able to use them to find new targets and methods for keeping teenagers from smoking. Or, they may be better able to help the adolescents quit smoking once they have started.
Hemochromatosis Patients Describe Their Plight

Before Brian Jarvis of Portland, Oregon was diagnosed with HH hemochromatosis in 1993, he says, he donated blood infrequently. After the diagnosis, "I gave on a regular basis — every 60 days — from 1995 to 1997, in order to maintain my blood iron at a normal level."

Jarvis says that when he went public with the fact that he was an HH person, the American Red Cross declared him "an unacceptable donor," and cancelled his donor eligibility.

His blood is now discarded.

Randy Alexander, a hemochromatosis sufferer, and founder of the Iron Disorders Institute in Greenville, South Carolina, said at the U.S. Public Health Service's advisory meeting last April: "I have experienced firsthand the frustrations of having to have blood drawn, at a cost of over $800 a month — and it was to save my life. I had few alternatives because I was unable to work for long periods of time."

"Hemochromatosis patients do not understand why this blood cannot be used. If some people are paying $300 for a pint of blood, and it puts them in financial ruin, what options do they have? We have an opportunity, a resource of blood from people with hemochromatosis. They feel they can help somebody else. When they have blood drawn, and then see a biohazard sticker put on that bag, that does not set well with them."

Alexander told PROBE by phone that internist Herbert, in the Bronx, has been "one of the main drummers in this fight." He's a doctor and a lawyer, Alexander points out.

"He yells and screams at the FDA and the blood banks — but not without merit. It took knocking down their doors to get these organizations to where they are now — investigating why this blood isn't being used!"

Blood...

continued from page 1

this blood, diluted 1:10 in an adult recipient's circulation, is no risk at all, Herbert says. In fact, many transfusion recipients are anemic, and for them the bit of extra iron is a plus rather than a minus. What is more, hemochromatosis sufferers, with their iron-rich blood, are less likely than others to need transfusions. So, they are less likely to be infected with hepatitis and other transfusion-related microbes.

Several years ago, Herbert and his Mount Sinai associates reexamined the blood-dumping practice.

"I have lived through many blood shortages, including one this past summer," said Mount Sinai's blood bank chief, Morton Spivack, M.D. "The use of blood drawn from the many otherwise healthy patients with hemochromatosis would go a long way toward alleviating these recurrent shortages."

He and Herbert and several colleagues filed a petition with the FDA in 1996, to destigmatize hemochromatotic blood. In June, 1997, the FDA rejected the petition, saying there was not enough evidence to support the idea. Then, last April, Herbert was invited to present his case to a U.S. Public Health Service's advisory committee meeting on blood.

The result of that two-day meeting was passage of a unanimous resolution:

The committee finds that blood products obtained from persons with hemochromatosis carry no known increased risk to recipients attributable to hemochromatosis, per se, and therefore may be a valuable resource to augment the diminishing blood supply.

End of story? Unfortunately, no. The FDA and the national blood organizations still have not lifted their ban on using iron-heavy blood for transfusions.

"The government cannot in one day, on its own initiative, do something completely different than it did yesterday," explains internist Stephen D. Nightingale, M.D., a blood resources expert in the Department of Health and Human Services. Meanwhile, he told PROBE, "The FDA is preparing, for release this spring, a blood industry guidance that will state how blood banks can gain exemption from the current law, which still says 'no' to using the blood."

This despite the fact that "[n]o knowledgeable person believes [the blood] is intrinsically dangerous," complained Vincent Felitti, M.D., of the Southern California Permanente Medical Group, in San Diego, at the Public Health Service conference last year. "Indeed, [this blood] has been transfused in Sweden for thirty years without a problem, and in Canada for almost a decade."

Money Counts in the Equation

One reason for the foot-dragging, Herbert asserts, is money: the fees blood banks charge hemochromatosis patients to draw their blood. Plus, the costs recipients incur for transfusions. The blood-letting fees paid by hemochromatosis patients typically range between $50 and $200. This is essentially pure profit, since the blood is discarded, and doesn't need to be typed or tested.

"Blood banks currently gross $200 million a year charging hemochromatosis patients for phlebotomies," says Herbert. Not an easy thing to give up.

The reform proposal would redefine the hemochromatosis patients as blood donors. They no longer would have to pay to be bled.

Proposal Issued

These considerations led FDA last year to issue an interim waiver procedure that says:

"If blood establishments [blood banks and hospitals] can verify that therapeutic phlebotomy for hemochromatosis is performed at no expense to the patient, the FDA will consider case-by-case exemptions to [the] existing regulations" [emphasis added].

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Blood...
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sis added).

To start using the iron-rich blood for transfusions, the hospital or blood bank must ask FDA for a variance from the current rules. The request submitted by Mount Sinai in New York, and accepted by FDA, says:

"We ... will not ... charge any hemochromatosis donor who qualifies as a routine blood donor. We will perform all required viral marker studies on these units [of blood] and will provide FDA with any data" on problems that may arise.

An FDA director responded by granting the hospital the right to collect blood from hereditary hemochromatosis donors, without the special labeling.

The FDA still has not come up with a proposal to fully legitimize the iron-rich blood.

Blood Bankers Demur

The American Association of Blood Banks (AABB), which represents a majority of the blood collecting agencies in the country, is also dragging its feet. In a memo to member blood banks, it stated that its standards currently prevent hemochromatosis patients from donating. The memo went on to state that blood facilities could get an exemption from the AABB regulations.

"Those facilities that apply to the FDA for a variance from their requirements should probably apply to the FDA for a variance from our standards at the same time" [emphasis added].

However, an AABB official said by e-mail, "We are not currently granting variances from ... the standard that prohibits ... donations from hemochromatotic individuals."

According to Herbert, Mount Sinai's Spivack, an AABB member, hasn't asked the organization's approval. Mount Sinai is operating, with no problems, under the FDA waiver alone, he says.

Mechanisms Not Known

Some blood banks may not know of the FDA's exemption to the restrictions on using hemochromatic blood. A doctor at New York Hospital's blood bank told PROBE by phone:

"I was aware that the process was in place. But we have not yet taken advantage of it. I didn't know the exact mechanism of how it was going to be done."

He added, later, that the exemption didn't really apply to New York Hospital, as it performs phlebotomies, but does not operate as a blood donor center. New York Hospital continues to charge about $200 per phlebotomy, and then tosses the blood.

No one knows exactly how much blood would actually be added to the nation's blood supply if hemochromatosis blood is finally destigmatized. Herbert estimates that re-using the blood from just one of the four phlebotomies that male hemochromatosis patients need each year would provide about 31 million units. He says:

"Using this blood would keep the patients healthy, and would forever end blood shortages!"

The Blood Banks Aren’t Rushing

PROBE phoned several blood banks across the country to see if they knew of the FDA exemption. If so, were they using it to collect hemochromatosis patients' blood for transfusion? Here's what they said:

Sacramento Blood Center, California:

People at this blood bank are aware of the exemption, but are not yet applying for it, explained blood banker Leonor Fernando, M.D.

"The exemption application process is a challenging one," a colleague, Chris Gresens, M.D., added: "To apply for this exemption we’d have to commit at least several hundred hours of work," at a cost of "thousands of dollars . . . . Labeling and tracking these units would present additional challenges."

American Red Cross - New England Region:

The policy of the American Red Cross (ARC), which accounts for about half of the blood supply nationwide, is to not use the blood. "Our national headquarters is evaluating the recent FDA announcement," said Stephanie Millian, ARC spokesperson for the New England Region. "But for now the current procedure remains in place. We don’t accept hemochromatosis patients for transfusion."

Meanwhile, the New England ARC phlebotomizes 7,000 patients a year. The average cost is $32, according to Millian, which covers the staff's time and the blood bag.

What does she think of the discard policy?

"It boils down to what our national headquarters tell us to do with the blood," she said. Meanwhile, New England is experiencing shortages of O+ and O−, but, Millian says:

"We need blood of all types. Flu has had an impact on our supply; many donors have canceled. We’re not in an emergency situation, but we’re monitoring the supply on a daily basis."

Blood Centers of the Pacific, San Francisco:

Until two years ago this blood bank used hemochromatosis blood. Now they’ve stopped. "The AABB came out with regulations against using it," explains Danna Sorensen, Director of Donor Collections. "And now the one hospital that our blood center used won’t accept it . . . ."

"We drew blood from those patients for 20 years . . . . We didn’t kill anybody by using it. What made it okay one day, and not okay the next day is beyond me!"

New York Blood Center:

Currently does not have a waiver. But hematologist Robert Reiss, M.D., says they are in the process of getting one. He said that once they "apply for the FDA waiver, we have protocols in place that would enable us to [use the blood for donor purposes]. We have to show how we’ll collect data. We also have to apply for a New York State waiver and one from the AABB." — J.E.H.
Carotenoids...
continued from page 4

seriously incorrect . . . . "We may need to rethink . . with
greater candor, the limitations and ambiguities of the epidemi-
ological method."

PR woman Caron Blitz, at VERIS, agrees that it is time to
rethink and restudy these matters. She is particularly drawn to
the possibility that a more natural beta-carotene molecule than
the one previously tested may be more efficacious. She and her
client also speculate that a mix of carotenoids, rather than a
single one, may provide the long-sought benefits.

Given the paucity of scientific evidence to support these
hypotheses, should people continue to take carotenoids?

"We believe so," says Blitz, "because there are so many
positive suggestions!"

# # #

Positive suggestions aren't evidence. There appear to be no
scientifically sound reasons to take beta-carotene supple-
ments at this time. — D.R.Z

Maybe, Maybe

"[T]reatment trials using synthetic beta-carotene . . . have
been generally neutral or negative, with some positive results.
In contrast, studies of other specific carotenoids or mixed
carotenoids have provided interesting, generally positive
results. Thus based on current research data, increased intake
of a mixture of natural carotenoids, rather than beta-carotene
alone, may be of greater benefit in disease prevention" [empha-
sis in the original]. — Carotenoid Fact Book, p.17

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