Britain's National Health Service: The Doctors' Dilemmas

One glaring example of the British genius for compromise was the arrangement under which specialists in the National Health Service (NHS) were allowed to treat private patients in public hospitals. The Labour Party had always been uncomfortable with the "pay beds," as they were called, on grounds that they encouraged a double standard of care in a system intended to be egalitarian. Before the national elections 4 years ago, therefore, Labour promised to phase out the private beds if it were successful at the polls. Labour won and acted to carry out its campaign pledge.

The move, resolutely opposed by NHS specialists who devoted part time to treating patients in NHS hospitals, came at the same time that doctors were embroiled with the government in a dispute over pay. The pay claim was settled recently and the phaseout of pay beds is now well along, but the conflict had dimensions which left the doctors with a lingering case of low morale. During the wrangle over pay beds, for example, the hospital doctors were brought into collision with the hospital workers' unions, which, in effect, challenged the doctors' claim to be head of the health care team. Unresolved, therefore, are basic issues of the role of doctors in the NHS and of their status in British society.

In the background are more general questions about the organization and funding of the NHS (*Science*, 21 July) which are worrisome enough to have warranted study by a Royal Commission on the National Health Service, which is now within a year of reporting. These questions have analogs for American physicians and are even more to the point as national health insurance plans for the United States are being discussed.

The pay beds issue affected consultants, as the British call their specialists, and not general practitioners. In Britain, the functions of specialists and GP's have been more sharply delineated than in the United States. GP's in Britain are primary care physicians who work in the community; consultants work in hospitals. The GP's do not have hospital privileges, although they may rely on hospitals for x-ray and other diagnostic services for their patients. They refer patients to consultants for a decision on whether hospital treatment is needed.

The GP's work under individual contracts with the NHS, although increasing numbers are in partnerships or in government-supported health centers rather than in solo practice. Fully qualified consultants may choose to work full time for the NHS or part time for the NHS and part time with private patients. A relatively small but viable private medicine sector continues to exist and this includes private hospitals. Private health insurance plans survive and, in fact, are expanding.

The provision of private care in NHS hospitals—private patients must pay hospital and nursing as well as doctors' bills—was a product of a political decision made when NHS was organized in 1948 by the postwar Labour government. There was considerable uneasiness at the time about the intentions of the consultants—they were viewed as politically conservative and hostile to the NHS and it was feared that they might sabotage the nascent NHS by withholding their services. Aneurin Bevan, the minister who presided over the creation of the NHS, offered a compromise which included pay beds and relatively generous remuneration for consultants. He is remembered, perhaps apocryphally, saying, "Glut them with gold."

The consultants accepted the formula and the rebellion never occurred. It was the GP's who were most dissatisfied in the early days of the NHS. Their main complaints were about inadequate pay and excessively large panels of patients. Particularly objectionable to them was the formula for paying the expenses of maintaining offices and employing staff. A flat sum was provided, and some physicians increased their incomes by skimping on facilities, equipment, and staff, while their more conscientious colleagues suffered financially. A court decision in the 1950's led to improvements in pay and to formation of a pay review board whose recommendations the government has tended to heed. And the formula for expenses was finally revised to compensate for actual expenditures. The GP's as a group, in fact, seem to have had fewer complaints in recent years—except for pay lag—than in the early phases of the NHS.

Consultants, on the other hand, have been increasingly in conflict with authorities over basic working arrangements as well as the pay issue. Part of the problem is the British system of specialty training and practice, which, incidentally, departs markedly from that in the United States. The major difference is that a specific term of training and the passing of examinations do not win qualification for a specialist in Britain as is the case in the United States. Full status as a consultant requires that a physician actually be appointed to a vacant consultant's post in a hospital. The Department of Health and Social Services (DHSS) controls these posts and has limited their number tightly since NHS was established. The result has been a substantially larger number of physicians—"junior doctors"—in specialist training than can expect ever to achieve consultant status. Those who do manage to win posts usually do not gain the appointments until they are in their middle 30's. Many are even older, and numbers of those with years of training are forced to abandon their specialty for general practice or to transfer to specialties in which there are more openings. Another option open to juniors who are victims of the consultant bottleneck is emigration—"brain drain" reports cause periodic alarm in Britain.

The situation among British-trained junior hospital staff would have been even worse in recent years except that nearly half the specialty training positions are occupied by foreign-educated

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medical graduates. A relatively small percentage of those overseas doctors win consultant posts. As in the United States, measures are being taken in Britain to limit the number of foreign medical graduates in specialty training, so the number of British-educated doctors among hospital juniors will presumably increase in the future, thus increasing the competition among them unless the number of consultant posts is significantly raised.

Government unwillingness to increase the number of consultant posts—there are about 12,000 now—is usually attributed to chronic financial stress and resulting reluctance to increase NHS costs. Some observers see resistance from within the medical profession to a major increase in the number of consultants. The demand for specialist services in the hospitals is high, but that demand has traditionally been met by the limited number of consultants, because each typically commands an entourage of junior doctors, many of them very highly trained, who do much of the work. Junior doctors have complained about the quality of the supervision and training they have gotten from their consultant mentors. But those juniors who finally attain the coveted consultant status are products of the system, who expect to head an entourage of junior doctors themselves and would probably be disappointed if they found themselves with

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Federal Court Affirms Pro-Laetrile Ruling

The major court case on the alleged anticancer drug Laetrile, which began in Oklahoma more than 2 years ago, now appears to be heading for the Supreme Court.

On 10 July an appeals court in Denver upheld an injunction by Oklahoma district court Judge Luther Bohanon permitting use of the drug by terminally ill cancer patients. The appeals court narrowed the earlier ruling somewhat by stipulating that Laetrile could only be used in injectable form and had to be administered by a licensed medical practitioner.

What FDA officials found particularly "surprising" and "disturbing" was the reasoning of the court, which decided that the safety and efficacy provisions of the Food, Drug, and Cosmetic Act do not apply for persons who have been adjudged to be terminally ill with cancer. "What can 'generally recognized' as 'safe' and 'effective' mean to such persons who are so fatally stricken with a disease for which there is no known cure?" asked the court.

FDA commissioner Donald Kennedy countered in a statement that the ruling would "deprive such persons of protection guaranteed to others" under the law.

The court ordered the FDA to set guidelines "with all due dispatch" to enforce its ruling, but the agency is instead hurrying to present its case to the Supreme Court.

The Oklahoma case has been the flagship for members of the medical "freedom of choice" movement. Laws legalizing Laetrile under that slogan have been passed in 17 states and are under consideration in several more. However, an FDA spokesman believes the movement is finally beginning to wane. "From our standpoint the public intensity is considerably less than it was a year or so ago," he says.

British Scientist Sues over Clone Book

A lot of scientists felt like suing when they heard about David Rorvik's now-infamous book on cloning, *In His Image*. One, J. D. Bromhall, formerly of Oxford University, has matched his thoughts with action.

On 11 July Bromhall, whose work with rabbit eggs is cited in Rorvik's book, filed a $7 million libel suit against the author and his publisher, J. D. Lippincott Company.

Bromhall claims, through Philadelphia lawyer Arthur D. Raynes, that he was "defamed" because his work was mentioned in such a way "as to create the impression that Bromhall was cooperating in or in some way had helped and was vouching for the accuracy or credibility of the book."

He also claims invasion of privacy and infringement of common law copyright. He also wants the court to order the publisher to admit that the book is a fraud and a hoax and that "no such cloned boy exists." (The book, billed as nonfiction, purports to chronicle the genesis of a child cloned from a Howard Hughes–type millionaire and delivered of an Asian virgin in 1976).

Bromhall is referred to once in the text of the book as an Oxford scientist who managed to achieve some apparently viable rabbit embryos by fusing rabbit eggs with rabbit body cells. He is mentioned by name in a page-long footnote at the end of the book which details the procedure and quotes Bromhall to the effect that the success of the procedure "extends to the rabbit, and by inference to other mammals, the possibility of experiments which have so far been restricted to amphibians."

Science reached Bromhall in Oxford where he has been working as a documentary film maker since his grants (for cancer research) ran out in 1974. Bromhall believes that his work was more extensively misused by Rorvik than that of any other scientist "because I've gone farther than anybody else" into the final stages of cloning. Although he is not mentioned by name in the text, he says that "the particular techniques Rorvik has described in his book are the ones that I have developed here in Oxford."

Not only that, but Rorvik did not obtain the details until mid-1977, 6 months after the alleged birth of the clone. At that time he wrote to Bromhall asking for details on his work, and the latter, taking him to be a "serious researcher," sent him a 9-page abstract of his doctoral thesis. Bromhall now believes that the thesis was fraudulently obtained, hence the claim of copyright infringement.

Bromhall said he directly accused Rorvik on television of pulling a "confidence trick" in hopes of provoking him to sue, but he didn't rise to the bait.

Bromhall is not the only scientist who feels personally abused by the Rorvik exercise. Bernard Davis of Harvard Medical School is quoted in the book as having "proposed cloning talented individuals 'who might enormously enhance our culture.' " Davis, who has made no such proposal, says he consulted an attorney about the possibility of a libel suit but settled for a public retraction from Lippincott. The company on 27 March sent out a press release announcing that the quote would be eliminated from future printings (110,000 copies are now in print).

Davis got even madder when Lippincott informed him that Rorvik had not even read the 1970 *Science* article ("Prospects for genetic intervention in man") to which he refers in his bibliogra-

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less authority and more routine duties.

The peculiarities of the British system have given rise to tensions between the juniors and consultants. The pay of junior doctors had always been low and the training long and arduous, but, in the 1960's, inflation and the sharpening competition for consultancies made things worse. Economic and professional frustrations, perhaps combined with the more radical reflexes on rights of students and patients generated in the 1960's, produced a campaign by the juniors for improved pay and working conditions. This culminated in the middle 1970's in their refusal to work overtime, and, subsequently, in a substantial pay settlement which included an unprecedented concession of overtime pay. The effect of the settlement was to raise the pay of some senior registrars—roughly the counterparts of chief residents in the United States—to the level of the low rungs on the pay scale of consultants, who are not paid overtime although most of them do work it. This erasure of the differential between juniors and consultants coming on top of the "industrial action" by the juniors, which many consultants deemed unprofessional, aroused deep resentment among consultants.

Pay, of course, is an important factor in the current discontent. Physicians' incomes generally are substantially lower in Britain than in the United States and most countries of Western Europe. In

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phy. The quote instead was lifted from *Who Should Play God*, a book by a pair of anti-DNA research activists, Jeremy Rifkin and Ted Howard.

No one associated with Lippincott has yet made any comment on the Bromhall suit. Malicious libel is extremely difficult to prove and it can be assumed that "libel by association" (which is what lawyer Raynes called this case) would be even more so.

Want the Men to Pass ERA? Grab Them by Their Genes

If walls have ears, those of the Great Hall at the National Academy of Sciences must have reddened at some vehemence to which they are scarcely accustomed—namely, Estelle Ramey's pronouncements on behalf of the Equal Rights Amendment.

Ramey, professor of physiology at Georgetown University and one of the nation's most vocal feminist scientists, spoke briefly at a reception organized for several hundred women scientists on the eve of the pro-ERA march that was held in Washington on 9 July.

In what some regarded as a rather tasteless attack on her absent hosts—the ruling council of the Academy had taken the unusual step of allowing the women free use of the Great Hall—Ramey said: "To all of the women scientists in this room I would like to say that this is probably as far as you are going to get in the National Academy of Sciences." Calling it the "Cosa Nostra of the scientific community," she observed that since the average age of the members was "80," hormones could hardly be a qualification for membership—"at least not sex hormones."

She went on to give some brief political instruction. "Remember this: it was the men who had to vote to give women the vote. Men also have to vote for the ERA. Talk to them as the fathers of daughters. You might even talk to them as the husbands of wives, although this can be very dangerous. . . ." Mobilizing them means "getting them to fight for their genes." Noting that men talk about winning over "hearts and souls," she advised that "you have to grab them by the short hairs and their hearts and souls will follow."

Ramey reflected the general frustration felt over the fortunes of ERA. Only three more states are needed for ratification by the March 1979 deadline, but most people don't seem to think ERA is going to make it unless Congress grants a 7-year extension.

DuPont Finally Relinquishes Drug Institute Post

The other shoe—in this case the third—has dropped at the Alcohol, Drug Abuse, and Mental Health Administration (ADAMHA). Robert DuPont, head of the National Institute on Drug Abuse (NIDA) for the past 5 years, has resigned to make way for the new leadership ADAMHA head Gerald Klerman wants at his three institutes.

For the next few months, DuPont has been assigned to Klerman's office as a special assistant working on ADAMHA's role in the government's new preventive health strategy. He will sever his ties with the agency completely this fall.

DuPont told *Science* that he thought his main contributions in the job had been in helping bring about some harmony among the various agencies involved in drug abuse treatment, prevention, and law enforcement—there is nowhere near as much "acrimony" as there once was between HEW and the Department of Justice, he says. Also, he thinks he's helped "establish the identity of the drug abuse field. Five years ago, it was a politicized fad, not a serious area." But now, he noted, drug abuse scores higher than practically anything else in polls reflecting the concerns of adolescents and their parents.

DuPont notes that drug abuse is finally being recognized as an "enduring problem" not only here but in Third World countries where youthful abuse of hard drugs is rising alarmingly. He does not hesitate to mention marijuana in the same breath with heroin. "The prices we pay for marijuana use are going up. Those who say it's safe are going to have a lot on their consciences in a decade or so."

DuPont is now expressing great enthusiasm over matters of preventive health. "The major issue in drug abuse involves the fact that individuals are making choices that have major implications for society as well as individual health." He says that individual choices, in everything ranging from seatbelt-fastening to eating habits, will be the area in which "the major advances in health will be made."

Nutrition, for example, "has a long history of being at the core of health fads." This has "turned a lot of scientists off," which is unfortunate because it is also at the core of preventive medicine.

DuPont plans to discuss prevention as a commentator for ABC's TV show "Good Morning America," where he did several previous stints during his tenure as NIDA administrator. He wants to go beyond the anti-smoking, pro-jogging type of admonitions to discussions of healthy interpersonal relations and the need for socialization of health-promoting behavior. He expects employers, for example, to initiate more programs that recognize the importance of their employees' physical and emotional well-being. Finally, DuPont wants to set up a nonprofit corporation devoted to studies of behavioral health.

Constance Holden

making comparisons it should be kept in mind that salaries in Britain are generally lower than in this country, while living costs are, on balance, about the same. Income tax rates are higher in Britain, but the total tax burden for middle-income salaried taxpayers is probably close to the same level in the two countries.

Government figures show that before the recent pay settlement, house officers (interns and junior residents in this country) were paid £3663 to £4152,* registrars £4152 to £5109, and senior registrars £4818 to £6279. The juniors are now paid an additional £417 as a cost-of-living supplement. This is exclusive of overtime.

Consultants' pay for "whole time" service ranges from £7,500 to £10,689. This leaves out of account "distinction awards," merit pay which can raise the annual pay to a maximum of £18,000. About three-fourths of the NHS consultants earn the maximum scale—£10,689—and one in three receives merit pay in some amount. These distinction awards are a secret, known only to the individual consultant and his employer, and this secrecy is itself now a matter of controversy. Supplementary earnings are available to consultants for doing special medical reports on patients for insurance companies, courts, and local authorities.

Estimates put the number of consultants in full-time private practice at under 10 percent. About 43 percent of consultants work full time for the NHS, and another 25 percent work under "maximum part-time" arrangements. This commitment is computed at $^{9}/_{11}$ of the workweek and means that the consultant is available for $3^{1}/_{2}$-hour sessions morning and afternoon Monday through Friday and in the morning on Saturday. Many consultants put in more than the $3^{1}/_{2}$ hours required in the agreement. The consultant is free to carry on private practice outside the prescribed hours. Consultants on maximum part time and those with lesser commitments to the NHS were the ones affected by the pay beds issues. At the peak, pay beds amounted to about 1 percent of the total hospital beds in England and Wales.

Since the phaseout of pay beds began, plans for a number of new private hospitals have been announced. And the new wave of hospital builders includes NHS consultants on medical school faculties looking for sites near their teaching hospitals. Private clinics in London have always attracted numbers of British and foreign patients—most current anecdotes feature oil-rich Arabs. Brass plates with Arabic writing decorate the doors of some Harley Street consultants, and there are tales of sheikhs or their emissaries casually writing checks big enough to set up private clinics for their families and friends. Private hospitals with more than 100 beds require special planning permission, which may be hard to get from local authorities, who are sometimes biased against private medicine.

The recent pay settlement gives the doctors a 10 percent increase immediately and another 18.5 percent in two stages by April 1980. In agreeing to the total 28.5 percent raise, the government was conceding "anomalies" in the doctors remuneration, which, particularly since the last settlement in 1975, have caused them to slip behind other groups with which they are bracketed for purposes of applying pay policies. The junior doctors did not receive the full amounts granted GP's and counsutants—consultants at the bottom of the pay scale received an additional 8 percent. How the juniors will react to this is not yet evident.

Too Little, Too Late?

Spokesmen for the profession have been arguing that doctors' incomes have been eroding steadily and that physicians' status and economic position relative to other occupations and professions have steadily declined. While welcome, the pay settlement is regarded by many physicians as too little and too late, for example, to deter losses by the NHS through increased emigration of doctors. In Britain, concern about physicians joining an exodus of professionals has been particularly strong because of the heavy investment of public resources in the training of doctors. (By 1980, British medical schools will take in about 4000 students a year.) While the available data are inexact, current estimates put the net loss of physicians from Britain at about 300 annually. This compares with 400 to 500 a year in the early 1960's, another time of troubles for the NHS. What bothers many observers now is that many of those emigrating are well-trained physicians in the hospital service who have been discouraged by the difficulty of landing consultant posts and are unwilling to go into general practice.

British specialists now have wider options since new rules adopted by the European Community make mobility across borders easier for professionals in community countries. British physicians are regarded as well trained, and shortages, particularly in specialities such as anesthesiology and pathology, have opened opportunities for British physicians in Holland and West Germany, sometimes at quadruple their British salaries. Better working conditions and opportunities for research are cited as added attractions.

Emigration continues to exercise a special lure for British physicians interested in research. Opportunities for medically trained research scientists are traditionally more circumscribed in Britain than, for example, in the United States. In part, this may result from the feeling that the state has invested heavily in a medical education and expects a return in the form of medical services. British physicians typically acquire little research training during their postgraduate years, and consultants who wish to keep a hand in on research may be able to manage only a couple of afternoons a week at it.

Some observers say that biomedical research is the province of the D. Phil. rather than the M.D. in Britain mainly because of the heavy clinical emphasis in British medical education. Students begin their medical education in Britain at the age of 18, with 2 years of university preclinical studies in courses such as physiology, anatomy, and biochemistry. Three years of clinical study follow in university-connected teaching hospitals. A year as a junior house officer is then required—divided evenly between medicine and surgery—which is the rough equivalent of the American general internship. General practitioners in Britain are now required to take a 3-year postgraduate program in what amounts to family practice to qualify as a "principal"—that is, for solo practice.

In other specialties, the process takes longer and is generally less clearly defined than in the United States. A common requirement is that the candidate pass the examination of the appropriate royal college—the Royal College of Surgeons, for example—which is the British equivalent of an American specialty board examination. But successful pursuit of a consultant's appointment remains the ultimate qualification criterion.

The specialist may undergo 15 years or more of medical education to achieve full professional status. A neurologist, for example, may gain the equivalent of qualification in internal medicine before embarking on training as a neurologist. The quality of postgraduate training is generally regarded as high, and in clinical knowledge and skills the average British product may well surpass his American counterpart.

With its GP's, the NHS can claim a considerable measure of success. The existence of a separate corps of GP's insulated Britain significantly against the flight from general practice which oc-

*The current rate of exchange is about £ = $1.90.

curred in most industrial countries in the 1950's and 1960's, when physicians were attracted to what seemed then the more interesting and certainly more lucrative specialties. With a combination of controls and incentives the NHS has made progress in increasing the number of physicians in "underdoctored" areas and in making primary care accessible to most people in Britain under circumstances satisfactory to both patients and doctors.

Physicians have retained a substantial measure of professional independence in the NHS, and in this respect two ideas have been important in Britain. The first is "clinical freedom," meaning the doctor's right to treat his patient as he sees fit. The second is the distaste for "directed labor," a leftover World War II phrase with a totalitarian overtone which denotes government power to determine how and where individuals should work. British doctors generally appear to feel they have maintained clinical freedom, some critics say at the price of clinging to inefficient practices. The GP's, however, seem to have been somewhat more insulated than consultants who practice in hospitals, and therefore are in the thick of things in what is, in effect, the biggest nationalized industry of all, with the frictions that implies.

Part of the present angst among consultants is attributable to a feeling that the role of the physician as head of the health team is being challenged. The dispute over pay beds in NHS hospitals brought this issue to the fore. The Labour party had made phasing out of private beds an issue in the campaign before the 1974 parliamentary elections. When Labour won the election, however, unions representing ancillary workers in the hospitals (orderlies, aides, food service and maintenance workers) seized the initiative by refusing to provide service to private patients.

Observers note that competition among rival unions for members may have contributed to the action, but there is little doubt that antipathy to pay beds was widely shared among nonprofessionals on hospital staffs. British trade union attitudes tend to have nonconformist, egalitarian, anti-elitist foundations, and many union members obviously felt that pay beds represented a double standard of care which constituted an affront to them and a danger to a national health service. Some of the most militant trade unionists are Marxists and, in the pay beds matter, these activists sharpened the element of class conflict in the dispute.

Physicians have always identified with the professional classes in Britain. Most physicians have regarded it a duty to provide unpaid public service which would be likely to include such things as teaching of medical students and care of the poor; the physician would expect a measure of status recognition in return. Many doctors were unsettled at being pointedly treated by union members as "fellow workers" during the pay beds controversy and were deeply disturbed when the junior doctors initiated industrial action during their own pay dispute.

As a result of the events of the past few years, morale among physicians, particularly consultants, is unquestionably at a low point. Some consultants feel that the dispute over private beds heralds a campaign aimed at eventually abolishing private medicine in Britain.

The trade unions generally consider that private medicine inevitably undermines the NHS and sentiment there for abolition of the private sector is fairly strong and widespread. The Labour party and Labour government, on the other hand, specifically accept the continued existence of private medicine and, in fact, included some mild measures to encourage it in the agreement concluded with the consultants. The fortunes of private medicine in Britain would appear to depend on the ideological cast of subsequent British governments.

At the beginning of the NHS 30 years ago, doctors reached a compromise with the government which ensured that the health service would be run along lines largely to their liking. More recent government actions in the name of efficiency and equity and chronic disappointment over pay have damaged doctors' morale. But if many doctors feel thwarted in their desires to qualify in a particular specialty or do research, or are torn by the dilemma of whether or not to emigrate, the great majority continue to support the NHS idea.

Numbers of British physicians criticize their American counterparts for exploiting a monopoly position to enrich themselves, and British doctors tend to view their colleagues in other European health services as sacrificing clinical freedom. It is fair to say that to most British doctors, the NHS still appears to represent a desirable middle way, although current tensions are certainly putting that attitude to the test.

—JOHN WALSH

Biological Warfare Fears May Impede Last Goal of Smallpox Eradicators

One last obstacle is assuming greater importance as the World Health Organization's remarkably successful campaign to eradicate smallpox nears its final goal. Once the virus is eliminated from the wild, the stocks of virus held by research organizations will be the only possible source of the disease breaking forth again. Yet some laboratories have so far not heeded WHO's recommendation that they dispose of their stocks. Fears of biological warfare may be one reason why the U.S. Army Medical Research Institute of Infectious Diseases—the successor to the Army's Biological Warfare Laboratories at Fort Detrick in Frederick, Maryland—still maintains stocks of smallpox virus.

Possession of smallpox virus by USAMRIID is, on the face of things, unexpected. Offensive biological warfare was renounced by the United States in 1969, and for defensive purposes, a vaccination program would require not smallpox virus itself but, as Jenner discovered long ago, the related virus of cowpox. "The only reason to have smallpox virus is for offensive purposes. USAMRIID has not at this point been requested to turn it over, but that time will surely come," says John H. Richardson, director of biosafety at the Center for Disease Control in Atlanta, Georgia, and a consultant to the WHO eradication program.

Defense Department officials, however, say the virus has been retained up to now for diagnostic purposes, in case there should be a need for rapid identification. USAMRIID has not yet decided whether to retain, destroy, or transfer its stocks to CDC. "At this time we have not yet come to a decision pending a

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