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**Medicolegal Problems in Blood Transfusions**

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FOREWORD

In October 1960 the Joint Blood Council, Inc., an organization consisting of the American Medical Association, the American Association of Blood Banks, the American Hospital Association, the American National Red Cross, and the American Society of Clinical Pathologists resolved to authorize a study of "law suits involving blood banks." W. Croft Jennings, Esquire, of Columbia, South Carolina, a member of the Board of Directors, asked me to undertake this task. In January 1962 a preliminary report was widely circulated among interested persons for comment, and in October of that year the final report was published. That report is substantially as reprinted herein. Five thousand copies were distributed among hospitals, blood banks, and doctors, as well as others who were interested. A small reprinting was made in February 1963 by the John Sealy Hospital Blood Bank of the University of Texas, and in May 1963 a larger reprinting was made by the American Medical Association. In 1967 the American Medical Association and I authorized reprinting in volume I of the Practicing Law Institute publication Medical Malpractice.

In 1966 an unauthorized, practically verbatim, copy of this work was published in 16 Federation of Insurance Counsel Quarterly 9 (1966). Because of this and because of the wide interest that has been indicated in the developing legal problems involved in blood transfusion, I asked the South Carolina Law Review to publish this article. I wish to express appreciation to the many doctors who read the first draft and made helpful criticisms, as well as to lawyers who were willing to send me their office copies of the transcripts of cases in the article.
I. THE DOCTRINE OF CHARITABLE IMMUNITY

While there is great diversity among the states as to the extent to which a charity is liable for torts committed by its servants, the trend is to hold charities liable to the same extent as other associations. In several states, the highest court therein has overruled retroactively decisions of long standing granting charitable immunity. No hospital or blood bank can neglect serious consideration of insurance against liability.

The strong trend in appellate courts in the United States to reconsider critically the doctrine of charitable immunity has continued during the past decade. Charitable immunity means exemption from the application of general tort rules which, but for the charitable character of the tort-feasor, would apply.\(^1\) Whether a charitable institution is subject to the same liability as any other association is in this country usually a matter within the cognizance of the state legislative or judicial power. The rulings in the several states present a bewildering diversity; what the law is in detail in any particular jurisdiction must be the subject of careful research. The trend in the nation, however, is clearly to subject a charitable hospital or other medical institution to the same rules of liability that govern other organizations. This trend is being stoutly resisted by several states which are adhering to their previous rulings in favor of charitable immunity. The cases are very numerous, and no attempt can be made here to give more than the broadest treatment.

The states may be usefully classified in three groups: (1) Some states grant "complete" immunity to charities. Even in such states, relaxations of the rule have occurred. Recovery has been permitted for injuries resulting from breach of a statute or from certain non-charitable activities of the charitable organization, and recovery has been permitted on the theory that the charity maintained a nuisance. (2) Some states grant partial immunity. The leading example is the rule holding a charity liable for "corporate negligence." Examples of corporate negligence include wrongful conduct of an employee of the charity which results in injury to a stranger to the charity and negligence of officers of the charity in selecting incompetent employees, failing properly to instruct employees, or supplying

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improper equipment to them. New York until recently had another rule making nice technical distinctions as to when a charity could be held to respond in damages. Charitable hospitals were held liable for the "administrative" negligence, as distinct from "medical" or "professional" negligence, of the doctors or nurses on their staffs. This rule rested on the theory that doctors and nurses were independent contractors, bound by the canons of their respective professions, and hence that the hospital was not negligent even if the professional person were an employee. This rule has recently been abandoned in New York. Several other states permit actions against charities but limit recovery to non-charitable assets or to non-trust assets. A variant of this rule permits recovery on a liability insurance policy held by the charity. (3) A third group, growing in number and including many important states, has repudiated the immunity entirely. The same rules are applied to a charity that would apply to any organization. In some of these states, appellate courts have adopted this rule retroactively, overruling existing decisions that had granted complete or partial immunity. In Parker v. Port Huron Hospital, the Supreme Court of Michigan overruled its earlier decision, but made the ruling prospective only, to apply to the case before it and to other cases which arose after the date of the decision, September 15, 1960. This is not an oft-used judicial technique.

The Michigan court in the Port Huron case pointed out that the doctrine of charitable immunity had first been established in this country in the Massachusetts case of McDonald v. Massachusetts General Hospital, which had placed reliance on Holliday v. St. Leonard's. Yet the Holliday case had been repudiated in its own jurisdiction in 1871, in Foreman v. Mayor of Canterbury, five years before the Massachusetts decision. Thus the leading case on the point is not one of unimpeachable parentage. Particularly influential in attacking the doctrine of charitable immunity has been the opinion of Associate Justice Rutledge in President & Directors of Georgetown College v.

4. 120 Mass. 432 (1876).
6. L.R. 6 Q.B. 214 (1871).
Hughes. This opinion discusses and rejects all arguments justifying charitable immunity.

It should be noted that the Port Huron decision overruled a long series of Michigan cases granting the immunity, including a case decided only 12 years previously. The recency of decisions granting immunity is no guarantee that they will survive later attack.

In 1952 an exhaustive analysis of the rules in the several states was compiled in American Law Reports, Annotated. Classification of a particular state under the above 3-category grouping involves the exercise of some judgment, but a supportable classification as of 1952 could assign Arkansas, Kansas, Kentucky, Maine, Maryland, Massachusetts, Missouri, Oregon, Pennsylvania, South Carolina and Wisconsin as states adhering to complete immunity. Montana, New Mexico, South Dakota and Hawaii were doubtful since no clear rulings existed. Alabama, Arizona, California, Delaware, the District of Columbia, Florida, Georgia, Iowa, Minnesota, Mississippi, New Hampshire, North Dakota, Oklahoma, Puerto Rico, Utah and Vermont appeared to grant no immunity. The other states fell into the second category, with some variant of partial immunity. This classification seems to resist any explanation based on location or economic characteristics of the particular states.

In 1952, the Supreme Court of Mississippi overruled previous decisions granting qualified immunity to charities. Since that time, the question has been argued in several jurisdictions. Even in states which have reaffirmed their views of complete immunity, the court may indicate, as in Massachusetts, that it might not decide the matter the same way if it were offered as a new question. In some cases vigorous dissenting opinions have been filed.

Since 1952 the doctrine of complete or partial immunity has been overruled and the view of no immunity adopted in the

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7. 130 F.2d 810 (D.C. Cir. 1942).
following states: Kansas,11 Michigan,12 New Jersey,13 New York,14 Ohio,15 and Washington.16

In two recent cases, the constitutionality of a grant of charitable immunity has been challenged, in both cases without success. In Weeks v. Children's Hospital of Philadelphia,17 the Pennsylvania judge-made rule that charities were immune from tort suits was challenged as unconstitutional under the due process and equal protection clauses of the fourteenth amendment. The court upheld the Pennsylvania rulings, finding that the immunity rule was not arbitrary and that its classification was reasonable. In Fourier v. Miriam Hospital,18 an 1896 Rhode Island statute granting immunity to charities was challenged as violative of both the fourteenth amendment and a state constitutional provision to the effect that every person should have a remedy for every wrong which he suffered. Again, the court denied the claim of unconstitutionality.

Charitable immunity in the United States may be summarized by the words of one of the leading writers in the field of tort law. In 1964 Dean Prosser, of the University of California, wrote: "The immunity of charities is clearly in full retreat; and it may be predicted with some confidence that the end of the next two decades will see its virtual disappearance from American law."19 Clearly, the swing is in the direction he indicates.20

Courts attacking the doctrine lay great emphasis on the view that what is really at stake when a hospital raises the defense

15. Avellone v. Saint John's Hosp., 165 Ohio St. 467, 135 N.E.2d 410 (1956). This case was restricted in application to hospitals in Gibbon v. YWCA, 170 Ohio St. 280, 164 N.E.2d 563 (1960).
20. The reason for the departure of the courts from the doctrine of charitable immunity, even when this requires overruling decisions upon which some reliance might have been placed by hospitals within the jurisdiction concerned, are succinctly set forth in Brown, Stare Decisis Is Worth Its Weight in Reason: Abolish the Charitable Immunity Doctrine, 46 A.B.A.J. 629 (1960).
of charitable immunity is the cost of insurance premiums guarding against liability. Any hospital would be well advised to investigate carefully whether it should not carry liability insurance that would cover blood transfusion accidents, regardless of the law that seems presently to apply in the particular jurisdiction. The same observation would apply to blood banks, since in many instances primary liability would rest upon them rather than upon the hospital.

II. Theories of Absolute Liability
(Liability Without Fault)

A. Introduction

In recent years, various theories have been argued in transfusion cases whereby hospitals and blood banks would be liable for transfusion injuries even in the absence of negligence. Thus far, such theories have been rejected by the courts. Adoption of these theories would greatly extend the potential range of liability in transfusion cases.

The usual basis for legal liability in a case involving transmission of hemologous serum hepatitis or transfusion with incompatible blood would rest on allegations of negligence. Recently, counsel have attempted to predicate liability on theories which would relieve the claimant of the burden of proving negligence in the transfusion process. No court of last resort has yet adopted any of these theories, but strong dissenting opinions have been filed. The course of decision in this area is deserving of close attention. It should be noted that if liability were held to exist irrespective of fault on the part of the hospital or blood bank, issues would still remain for litigation, particularly the difficult question of causation. The burden of counsel for the claimant would be greatly eased, however, if any of these theories were adopted.

Relatively few accident cases go through litigation; the vast majority are settled by bargaining between counsel for the claimant and the defendant. Procedural considerations and the likelihood of success if the case were litigated are crucial in determining the willingness of counsel for the defense to settle the case on terms favorable to the claimant. If a case involving serious injury can get to the jury, the result both as to legal liability and as to amount of damages is highly unpredictable. It is apparent that juries tend to resolve doubts in favor of
liability. The jury might postulate the existence of insurance coverage or consider the institutional defendant better able to bear the burden of accident than the individual claimant. Damage awards have increased markedly in recent years, stimulated by rulings under federal statutes (particularly the Federal Tort Claims Act and the Federal Employers' Liability Act) awarding substantial damages and by the efforts of the National Association of Claimants' Counsel of America (NACCA) in favor of the "adequate award" in damage actions.

The best weapons in the arsenal of counsel for the defense are the rules of law by which the courts will rule in their favor without permitting the case to go to the jury. Although procedural rules differ in detail in the several jurisdictions, some rule exists in every state whereby the court will rule peremptorily for the defense if the claimant does not state a cause of action or if his evidence is not sufficient to permit reasonable men to arrive at a verdict in his favor.

The influence on these practical rules governing the bargaining power of claimants would be great if the alternate theories of liability suggested below were to be recognized.

Any rule of substantive law or procedure which enlarges the jury's theoretical sphere tends to extend liability.... Rules of the latter kind, however, are effective in restricting liability only when they result in a withdrawal of the whole case from the jury, and are not particularly effective when they are reflected only by language in the charge.21

B. Sale of Goods—Warranty

One such theory is that a blood transfusion, when there is a charge for the blood, is a sale of goods; hence, the warranties of quality and merchantability extended by the Sales Act, now the Uniform Commercial Code, apply. The only courts to consider this question have rejected the argument, sometimes over vigorous dissents. These courts have held the transaction to constitute a sale of services, rather than a sale of goods. The device of securing a release from the patient would appear to be of limited utility.

In Perlmutter v. Beth David Hospital,22 the highest court of New York rejected by a four to three vote the theory that a

22. 308 N.Y. 100, 123 N.E.2d 792 (1954).
patient who received a transfusion could recover for breach of warranty when she became infected with homologous serum hepatitis through blood supplied to her by the hospital at a stated price. Section 96 of the New York Personal Property Law created implied warranties of quality and fitness in the following relevant instances:

1. Where the buyer, expressly or by implication, makes known to the seller the particular purpose for which the goods are required, and it appears that the buyer relies on the seller's skill or judgment (whether he be the grower or manufacturer or not), there is an implied warranty that the goods shall be reasonably fit for such purpose.

2. Where the goods are bought by description from a seller who deals in goods of that description (whether he be the grower or manufacturer or not), there is an implied warranty that the goods shall be of merchantable quality.23

The court held that in its totality, the transaction was an indivisible contract for medical services to the patient, not a sale of goods, and hence, that the Sales Act provisions were inapplicable. The hospital made a separate charge of $60 for the blood, which it had purchased from the Blood Transfusion Association, a third party defendant in the case. Mrs. Perlmutter sought $50,000 damages. No allegation of negligence on the part of the hospital was made. The majority justices emphasized that holding the hospital liable under the Sales Act would mean that however careful it was, the hospital would be responsible. It was pointed out, the court citing American Medical Association research, that informed opinion held that there was no means of detecting, nor practical means of treating, the blood to eliminate the jaundice virus. The dissenting justices argued that there would be no injustice in holding the hospital liable, particularly since it would have a remedy over against the blood bank. It would be no startling development were an American court to hold otherwise on these facts. "One conclusion is evident from the Perlmutter case; that there is the very real possibility that other courts, and even the New York court, may yet hold hos-

23. N.Y. PERSONAL PROPERTY LAW § 96 (McKinney 1962). Commercial warranties are now controlled by UNIFORM COMMERCIAL CODE §§ 2-312 to -315, but the distinction between "sales" and "services" remains.
pitals and blood banks to be insurers of the quality of the blood they furnish.\textsuperscript{24}

For this reason, the American Medical Association Legal Department has suggested that hospitals should change their billing practices and not state the charge for blood as a separate charge. Further, they have suggested that hospitals obtain agreements for blood transfusions which expressly negate any implied warranty of the blood, particularly as to being free from infectious hepatitis. Even if such protective devices as these are found by hospitals and blood banks to be administratively feasible, they do not guarantee protection from liability. A court which felt inclined to adopt the theory of warranty for purchased blood could with equal ease penetrate the device of not separating the charge therefor. Even express written negations of warranty have been held ineffective by rulings that the statement had not been clearly brought to the purchaser's attention,\textsuperscript{25} or by a broader criticism that the waiver of warranty was against natural justice and good morals in the circumstances.\textsuperscript{26} Neither of these situations involved the sale of blood, but they illustrate the danger of reliance entirely on disclaimer of warranty.

It might in any case be inadvisable medically to warn the patient himself, who is about to receive a transfusion, of the danger of infectious hepatitis. An affidavit filed in \textit{Fischer v. Wilmington General Hospital}\textsuperscript{27} argued that the psychological and psychosomatic effect of such alarm would run counter to the beneficial effect sought to be produced by the transfusion itself. Certainly, a seriously ill patient about to undergo a major operation might be considered by a court to be in a particularly disadvantageous position to attend to a disclaimer of warranty.

In two other courts the theory of implied warranty has been put forward and rejected. The Supreme Court of Washington, in \textit{Gil v. Kennewick Public Hospital District},\textsuperscript{28} held that a transfusion was part of the services rendered a patient, and not a sale of blood. The Supreme Court of Utah agreed in a recent

\textsuperscript{24} \textit{Blood Transfusions—Medicolegal Responsibilities}, 163 J.A.M.A. 283, 286 (1957).


\textsuperscript{26} Linn v. Radio Center Delicatessen, 169 Misc. 879, 9 N.Y.S.2d 110 (1939).

\textsuperscript{27} 51 Del. 554, 149 A.2d 749 (Super. Ct. 1959). \textit{See also Uniform Commercial Code} § 2-302 (unconscionable contract or clause).

\textsuperscript{28} 48 Wash. 2d 774, 296 P.2d 662 (1955).
decision, Dibblee v. Groves Latter-Day Saints Hospital. The plaintiff based his argument on the California Cutter Laboratories decisions discussed below. The court found these decisions not persuasive, as well as distinguishable, saying that there was no kinship between a hospital furnishing blood and a commercial enterprise selling its products. "No hospital gives green trading stamps on the occasion of a blood transfusion . . ." said the court. "We do not say that hospitals should be immune from negligence. But we think they should not be strapped with an insurability of blood purity, absent negligence." Implied warranty was also rejected in Goelz v. J. K. Wadley Research Institute & Blood Bank, which rested primarily on charitable immunity.

A few sentences from the brief of the appellant in the Dibblee case in Utah show the argument for extending liability under a theory of warranty:

It is submitted that the cry of alarm raised by defendant in the case at bar as to the disastrous results to hospitals which would follow from the imposition of such liability is more apparent than real. Certainly, no such alarming results have occurred to our knowledge in the food field and the restaurant field from the general application of this doctrine throughout the country. Furthermore, if the hospital is as careful as it claims to be and if incompatible blood transfusions are as rare as it claims them to be, then there will be no flood on the courts of this state. . . It is no answer to say that liability for negligence is sufficient, inasmuch as the victim can hardly invade the laboratories of the hospital and ferret out evidence of negligence from unwilling witnesses who are reluctant to admit of mistakes.

As this argument indicates, counsel relied primarily on cases outside the area of blood transfusion litigation. He cited the recent decision of Henningsen v. Bloomfield Motors, Inc., which involved a new car purchased by the husband of the plain-

30. Id. at 244, 364 P.2d at 1087.
31. Id. at 243, 364 P.2d at 1087.
34. 32 N.J. 358, 161 A.2d 69 (1960).
tiff. After about ten days' driving, the steering wheel and front wheels suddenly went out of control, causing the car to crash. The car was so demolished that it was impossible to find out the cause of the accident. The court allowed the case to go to the jury on the theory of implied warranty and rejected the technical defenses of lack of privity of contract and disclaimer of warranty. Counsel also relied on Cushing v. Rodman, 36 a case involving the sale of food, in which the court thought that it was unnecessary to decide the narrow question whether there was an actual technical "sale" of food by a restaurant. The court said: "Even though the transaction is not a sale, every argument for implying a warranty in the sale of food is applicable with even greater force to the serving of food to a guest or customer at an inn or restaurant. A sale is not the only transaction in which a warranty may be implied." 37 These cases are mentioned here to point out that the developing law in quite different factual situations might have implications for blood transfusion liability.

The Cutter Laboratories decisions also bear on this problem. Several children contracted poliomyelitis in 1955 shortly after being inoculated with the Salk vaccine manufactured by Cutter. Verdicts were awarded in particular cases brought in the California courts for $139,000, $15,800, over $51,000, over $30,000, over $26,000 and over $12,600. The leading decision is Gottsdanker v. Cutter Laboratories, 38 rendered by an intermediate appellate court in California in 1960, in which the court affirmed judgments for two of the children. 39

In one of the Cutter cases, the jury found: "With regard to the law of warranty, however, we feel that we have no alternative but to conclude that Cutter Laboratories came to market ... vaccine which when given to plaintiffs caused them to come down with poliomyelitis, thus resulting in a breach of warranty. For this cause alone we find in favor of plaintiffs." 39 The jury expressly found that Cutter was not negligent either directly or by inference. In affirming, the district court of appeals said:

35. 82 F.2d 864 (D.C. Cir. 1936).
36. Id. at 864, quoting from 1 S. Williston, THE LAW GOVERNING SALES OF GOODS AT COMMON LAW AND UNDER THE UNIFORM SALES ACT 486 (2d ed. 1924).
In view of the established California rule that the consumer of a food product may recover from the manufacturer upon implied warranty, is there any reason to apply a different rule to the vaccine here involved? We think not. The vaccine is intended for human consumption quite as much as is food.

The fact that entry is made by injection rather than ingestion in no way alters the premise that each is for human consumption—each enters the human system. In fact, the digestive system has means of rejecting or minimizing the effects of many toxic compounds taken orally. Such defenses are much less available as against harmful elements introduced into the system by hypodermic injection.\(^{40}\)

The court in the Cutter case found the defendant liable despite the fact that the jury made a finding of non-negligence; liability was rested on breach of warranty under the California Uniform Sales Act, Section 1731.\(^{41}\) This is basically the same as the New York provision quoted above in discussion of the Perlmutter case. The usual defense of a manufacturer sued by the ultimate consumer of goods is technically referred to as privity of contract; that is, the manufacturer asserts that he has made no contract with the user, and hence, has made no warranties to him. Several courts recognize exceptions to this doctrine regarding goods that might be inherently dangerous in use, and the exceptions have been generally extended to foodstuffs. The California court found the initial sale to the distributor—in this case the doctor—was sufficient to impose responsibility on the manufacturer for fulfilling implied warranties that ran to the benefit of persons whom the manufacturer intended to become ultimate consumers.

The Cutter rulings would appear to be clearly inapplicable to blood transfusion cases in California since that state has a statute which declares that the processing of blood is not to be deemed a "sale" thereof.\(^{42}\) However, the ruling does adopt a theory at variance with the majority opinion in the Perlmutter case. In Spencer v. Cutter Laboratories, apparently unreported, a Tennessee claimant, who had contracted polio from vaccine supplied by Cutter, sued in the Federal District Court, Northern

\(^{40}\) Id. at 323.
\(^{41}\) CAL. UNIFORM SALES ACT § 1731 (West 1954).
\(^{42}\) CAL. HEALTH & SAFETY CODE § 1623 (West 1964).
District of California. The court held that the case was governed by Tennessee law and that an action predicated on the theory of warranty was not maintainable.

These decisions and developing doctrine indicate that this area of the law needs close and continuing study.

C. Pure Food and Drug Acts

Another such theory urges that the transfusion of blood containing hepatitis constitutes a violation of the Federal or State Pure Food and Drug Act. The only case to arise denied liability under this theory, but by a two to one vote. The new technique of storing plasma for six months to eliminate hepatitis virus must be considered in this context; failure to utilize the technique might be considered negligence.

The Federal Food, Drug & Cosmetics Act provides:

Adultered drugs and devices: A drug or device shall be deemed to be adulterated—(a) (1) If it consists in whole or in part of any filthy, putrid, or decomposed substance....

The federal act is applicable only to drugs transported in interstate commerce. Tennessee has an act patterned after the federal act and containing similar language. These are criminal and regulatory statutes, but it has been held that violation of the federal act with resulting injury to an ultimate consumer gives rise to civil liability.

In Merck & Company v. Kidd, an action was brought by a claimant who in connection with an emergency operation had received a blood plasma transfusion and had apparently contracted homologous serum hepatitis. The original complaint was in three counts, charging (1) negligence of the defendant in manufacture of the plasma, (2) breach of implied warranty of merchantability, and (3) violation of the Tennessee act. Prior to trial the first two counts were dropped, so the case was tried solely on violation of the Tennessee act. The theory of the plaintiff's case was that the transfusion of plasma containing jaundice virus was a violation of the Tennessee act and constituted negligence per se. This rested necessarily on the assertion that plasma containing hepatitis virus constituted an adulterated drug

46. 242 F.2d 592 (6th Cir. 1957).
under the statute, the virus being a “filthy substance.” The action was brought under the federal diversity jurisdiction, which required the federal court to determine the law of Tennessee. Since there were no Tennessee decisions, the court looked to cases under the federal statute to shed light on what Tennessee might decide.

The trial court refused the defendant’s motions for a directed verdict and permitted the jury to conclude from the testimony of medical experts whether the drug was “filthy.” The jury rendered a verdict for the plaintiff. On appeal, the decision was reversed by a two to one vote of the appellate court, which held that the word “filthy” in the statute did not embrace blood containing hepatitis virus. Here again, as in the Perlmutter case, the dissent was vigorous. The court found it unnecessary to consider two of the defendant’s arguments: that the plaintiff had assumed the risk, in that he had consented to whatever medical treatment was necessary (his wife had signed such consent, and the plaintiff testified that he had authorized her to do so), and in that his physician had administered the plasma knowing of the risk of hepatitis; and second, that if the physician were not authorized to assume this risk for the plaintiff, then the physician was negligent in not advising the plaintiff of the risk, and such negligence was an intervening cause relieving defendant of liability.

The court seemed to assume that the plasma constituted a “drug,” but the majority held that the hepatitis virus was not a “filthy substance” within the statutory language. As in the Perlmutter case, the majority of the court argued that it would be unfair to make a rule under which liability could not be prevented by a proper manufacturing method. “[A] virus which cannot be seen even with the most powerful microscope, which cannot be described, and the presence of which cannot be known at all except for its ultimate result, is not a filthy substance within the intendment of the statute.”47 A case holding that bacillus typhosus absorbed by live oysters during their growth rendered them filthy within the food sections of the federal act was distinguished on the ground that such bacillus is detectable microscopically.48 The dissenting judge found this distinction tenuous and urged that serum hepatitis virus in plasma should

47. Id. at 596.
as a matter of law render the substance filthy. None of the judges commented on a 1954 paper in the *Journal of the American Medical Association* relative to the elimination of hepatitis virus from plasma by storage at room temperature for a six months period; presumably the operative facts in the case occurred before this practice became established. A failure to utilize the six months storage safeguard where utilization was practical would now make a persuasive case for a finding of negligence. The Kidd case remains an important decision for whole blood transfusion cases in which hepatitis develops, even if the new technique is approved medically in plasma cases.

D. Assault and Battery

*Giving a blood transfusion to a person without his consent can constitute a battery. The question might arise where the wrong person is given a transfusion. Special care should be exercised where a child is donor or recipient of blood; the parent might be the only one capable of giving effective consent. Troublesome questions arise in connection with transfusions to members of the Jehovah's Witnesses sect or their children.*

Though not strictly involving liability without fault, the assault and battery cases may conveniently be discussed at this point. Any unprivileged, unconsented contact with the person of another, if intentional, can constitute a battery. Actual harm is not essential to recovery; a jury can award actual damages to a person who has suffered from the contact, but it can also award "general" damages for the invasion of the person. A few cases have arisen in which damages have been awarded against doctors or hospitals, where the theory of the case might have been battery or trespass to the person. In such a case, liability could not be avoided however strong the proof of care exercised by the doctor or the hospital. Ordinarily, a donor of blood or a patient recipient of blood cannot assert that a battery was committed since he has given his consent to the particular act.

1. Transfusion of Wrong Person

   In Necokayf v. Genesee Hospital, an intermediate appellate court granted recovery against the hospital when the wrong patient was given a blood transfusion, the court finding that this


constituted at least negligence, if not trespass and assault (battery). An intern and a nurse came into the patient's room and advised her that she was to have a blood transfusion, the blood having been obtained from her "daughter Lillian." The patient informed them that she had not been told that she was to have a transfusion and that she had no such daughter. The transfusion was actually intended for another patient on the same floor. Since the patient suffered a chill and rising temperature during the transfusion, the process was stopped and her doctor summoned. Later she became mentally ill and had to spend some time in a mental hospital. Damages in the amount of $6,500 were awarded. Apparently the blood was incompatible. Most of the court's opinion is devoted to whether the transfusion was a professional or administrative act—the question of charitable immunity. It is obvious that any amount of care in typing and cross-matching would not avail as a defense in this situation; recovery might be allowed without any proof of harm to the patient on the theory that the invasion of her person was unpermitted.

2. Infants: Jehovah's Witnesses

The consent of a minor to giving or receiving blood may be held ineffective to relieve a defendant of liability. Some cases hold that if an infant is old enough to know the significance of what he is doing, he can effectively give consent. Only one blood donor case has arisen, Zaman v. Schultz,51 in which a doctor was held liable for taking the blood of a minor without the consent of his parents. It appears that in Zaman actual harm was suffered by the child. The Southwest Blood Banks' technical procedures, whereunder the consent of unmarried minors between 18 and 21 years of age, other than servicemen, may be accepted only with the written consent of their parent or guardian, appears to be a wisely conservative practice.

More distressing are the Jehovah's Witnesses cases, discussed in the Journal of American Medical Association.52 The conclusion therein appears sound: that an adult patient may refuse to receive a transfusion, however desperate the need in medical opinion, and his refusal must be honored. It would quite accord with legal principles if a jury awarded damages for battery to a patient who refused his consent to a transfusion, even though

the patient's life were saved thereby and the transfusion resulted in no injury to him. The insult to the person of a member of the Jehovah's Witnesses sect could support a recovery of "general" damages, the amount of which lies largely in the discretion of the jury. It is of course unlikely that a jury would award more than nominal damages in such a case. Where harm resulted to the patient from the transfusion, however, a strong case for recovery would arise, no matter how careful the administration of the blood. The Journal article points out the wisdom of obtaining a written and witnessed request from a patient who insists that he not be administered blood, in order to create a medical record justifying the failure to utilize transfusion.

Extreme caution is warranted to avoid liability in transfusing a child of a Jehovah's Witness. Some courts have granted permission to give a transfusion to a child member of the sect, despite the refusal of consent by the parent, upon a showing that a failure to do so would jeopardize the life of the child. In People ex rel. Wallace v. Labrenz,53 a lower court issued an order appointing a guardian authorized to give consent to a transfusion. The child was eight days old and suffered from erythroblastosis fetalis, and at the time of the successful transfusion, her blood count had been dropping steadily. The Supreme Court of Illinois found no violation of religious liberties of the parent in this procedure.54 In another case two Indiana physicians anticipated the transfusion need during a patient's pregnancy, since the patient was Rh negative and her husband Rh positive, and obtained a court order before delivery authorizing transfusion if it became necessary. Three days after birth, the transfusion was performed.55

E. Criminal and Administrative Sanctions

Indictments recently issued have charged defendants with intentional violations of federal laws regulating manufacture and distribution of whole or processed human blood. Hospitals or blood banks might be criminally prosecuted for unintentional violation of these regulations. They might also be held civilly liable for harm to a blood recipient who was transfused with illegally processed blood, especially if the hospital knew the

53. 411 Ill. 618, 104 N.E.2d 769 (1952).
55. This incident was discussed by Hirsh, Medicolegal Responsibilities of Blood Transfusion (unpublished address).
blood was illegally prepared or were negligent in finding this out. The Federal Trade Commission has charged violation of the anti-trust laws in the community blood banking operations in the Kansas City area.

The principal concern of this memorandum is with the potential civil liability of hospitals and blood banks for injuries arising in the transfusion process. Recent developments have called attention to the fact that other areas of the law are applicable to the operations of these institutions. In a federal court in New York, individual and corporate defendants were indicted on charges such as altering the expiration dates on bottles of blood, using false donor numbers, and selling blood products without the required federal license. Other defendants were indicted later in 1963, in the same court, for selling plasma processed at an unlicensed laboratory. On July 5, 1962, the Federal Trade Commission commenced proceedings against individuals and non-profit charitable organizations in the Kansas City area, charging restraint of trade and attempted monopoly in the exchange, sale, and distribution of human blood in interstate commerce.

These proceedings involved technical legal problems outside the scope of this memorandum, but it would be useful at this time to set forth the allegations of the complaints in the respective proceedings and to indicate possible lines of inquiry for future attention.

1. The Criminal Proceedings

In United States v. Calise,56 the defendants were indicted in the United States District Court for the Southern District of New York on charges of altering the expiration dates on bottles of blood, using false donor numbers, and selling blood products without the required federal license. The blood products were allegedly moved in interstate commerce or intended for interstate shipment. The indictment contained 80 counts. Counts 1 through 58 charged labelling containers of whole human blood falsely to show an expiration date later than that originally affixed. Counts 59 through 75 charged causing to be affixed a

56. Pre-trial motions were decided in 217 F. Supp. 705 (S.D.N.Y. 1962). No further disposition of this case is reported, but the defendant Calise was indicted as co-defendant in another proceeding growing out of the same incident and was found guilty of conspiring to violate the Public Health Service Act. United States v. Steinschreiber, 219 F. Supp. 373 (S.D.N.Y. 1963), aff'd, 328 F.2d 739 (2d Cir. 1964). This is the next case to be discussed.
number purporting to identify a specific pint, drawn by the Community Blood and Plasma Service, defendants well knowing that it was not the blood assigned such number. Counts 76 through 78 charged knowingly bringing for sale or selling washed cells from human blood, prepared at an establishment that did not hold a federal license. Count 79 charged the same for whole human blood. Count 80 charged that the defendants conspired with named co-conspirators, not joined as defendants, to violate the provisions governing the acts alleged above. It was charged that part of the conspiracy was that the blood be transferred from one container to another after drawing, that washed cells would be prepared without proper safeguarding, that false and misleading labelling would be used in regard to the identity of the manufacturer and the date of expiration, and that blood products would be prepared and held under unsanitary conditions. Shipments to New York, Puerto Rico, and Massachusetts were alleged.57

In United States v. Steinschreiber,58 counts 2 through 8 charged knowingly sending or bringing for sale from one state to other states or foreign countries normal human plasma not prepared at an establishment holding a license issued as required by the Public Health Service Act.59 Counts 10 through 15 charged falsely labelling and marking packages and containers to show “U.S. License No. 224” when the products were not manufactured at an establishment holding a license. Counts 13 through 15 charged falsely marking to indicate that plasma had been irradiated and aged six months before drying. Count 1 charged a conspiracy among the defendants with each other and with others unknown to the government. Under this allegation it was charged that pursuant to the conspiracy the defendants Fisher and Kenworth Laboratories and Cappel and Cappel Laboratories would manufacture dried human plasma at an establishment that did not hold a federal license and that the defendant Steinschreiber would cause the blood products to be brought from New York, New Jersey, and Pennsylvania to foreign countries and from New Jersey and Pennsylvania to New York. Overt acts pursuant to the conspiracy were alleged.

57. Applicable provisions of law were 42 U.S.C. §§ 262(a), (b), (f) (1964); 42 C.F.R. § 73.50 (1967); 18 U.S.C. § 2 (1964).
Two questions are suggested for future research. First, to what extent might a blood bank or hospital be found liable for inadvertent violations of the federal statutes? The instant indictments alleged deliberate and wanton violation of the Federal provisions. However, criminal conviction of innocent violators has been upheld under the Federal Food, Drug and Cosmetic Act. Neither intentional violation of the Act nor negligence need be shown; the innocent transgressor of the law is as subject to prosecution as the guilty.60 The provisions of state regulations of blood banking operations would raise similar problems. Inquiry might usefully be addressed to the question of the extent to which an innocent recipient of blood products such as a hospital might run afoul of the federal act or state law. Second, a hospital or blood bank which receives and passes on or uses blood products which have been prepared under conditions which violate the law might become liable to the ultimate user if harm results. In the criminal cases discussed herein, some of the allegedly mislabelled blood products were shipped to hospitals for use in transfusions. It is to be hoped that these shipments have been traced and destroyed, or at least subjected to further testing to determine that they may be used safely. If a hospital knowingly or negligently uses defective blood products, liability could result.

2. The Federal Trade Commission Proceeding

The proceeding entitled In re Community Blood Bank61 was commenced by a complaint of the Federal Trade Commission on July 5, 1962. The gist of the complaint was that the respondents, the Community Blood Bank, the Kansas City Area Hospital Association, the member hospitals of the latter (three of which were named respondents and the others of which were asserted to be represented by the three in a class action proceeding), and fifty individuals, including the governing boards of the respondent organizations, their executive directors and sixteen pathologists, conspired and acted to boycott two commercial blood banks and to establish their own nonprofit community bank. All of the respondent blood banks, as well as the allegedly excluded blood banks, were licensed by the government. The two affiliated commercial blood banks, Midwest and World Blood

Bank, were allegedly excluded from supplying blood to the member hospitals, prevented from becoming members of A.A.B.B., and prevented from participating in blood exchange and replacement programs organized by the respondents.

Many technical questions arose in this proceeding. Looking beyond the proceeding itself, there are possibilities of private damage actions brought by the excluded blood banks. Questions such as the applicability of the treble damages provisions of the anti-trust laws and the extent to which the excluded banks could use the findings of the Federal Trade Commission as proof of violation of the Act in a private action for damages could usefully be researched. The broader question suggested by the instant proceedings is the extent to which the federal anti-trust laws could apply to existing or contemplated organizational structures for the control and dissemination of blood products.

III. Claims Based on Negligence

A. Introduction

Negligence is the failure to observe due care in all the circumstances. For professional specialists, the standard of due care is the degree of skill to be expected from the general class of persons pursuing that calling. Courts of law will usually rely on the testimony of experts in that field, presented by the parties to the dispute, to inform the trier of fact as to the current state of scientific knowledge in the field.

Negligence may be defined as conduct "which falls below the standard established by law for the protection of others against unreasonable risk of harm." The usual statement of the standard is the conduct which the reasonably prudent man would employ under the circumstances. Where professional conduct is concerned, the actor is held to the degree of skill which the general class of persons pursuing that professional calling would possess. If the conduct under inquiry is beyond the experience of the average juror, expert witnesses are permitted to give their opinions, based on the expert's observation of the conduct in question, if he observed it, or based on a hypothetical question drawn from the evidence in the case, if he did not. Most jurisdictions also permit the expert to testify as to the customary methods in the profession, particularly the custom in that area. Evidence that a defendant hospital followed the customary

methods and procedures in typing and cross-matching blood would at least be probative, and in some cases might be conclusive, to show the exercise of due care. Evidence that a hospital exercised less than the customary precautions would support an argument for negligence; at the least, it would indicate that the precautions omitted were feasible and not unduly burdensome. The testimony of experts can be supplemented by the court's taking judicial notice—that is, instructing the jury concerning matters of scientific knowledge that are indisputable and are available in easily accessible sources. In blood transfusion cases, the state of the medical record in the case, as supplied by expert testimony and by propositions judicially noticed, can be expected to be crucial.

In a well-prepared case counsel for the claimant will utilize expert medical advice in the preparation of his case. He will also study the medical literature and will present, either through expert witnesses or through the judicial notice technique, arguments from medical literature as to what constitutes due care in the profession. The cases illustrate that the scientific and medical testimony is particularly important in the first transfusion case brought in the jurisdiction, when the court is concerned with establishing the basic rules of law that will govern future cases.

B. Proof of Negligence; Res Ipsa Loquitur

Res ipsa loquitur is a procedural device which aids a claimant in getting his case to the jury without the necessity for proving the specific acts of negligence. No case has yet held that mere occurrence of a hemolytic reaction, by itself, gives rise to an inference of negligence. We may expect that transfusion of the wrong type blood to a patient will be held to constitute negligence, or give rise to an inference of negligence.

In any negligence action the plaintiff will normally carry two burdens, technically called the burden of producing evidence and the burden of persuasion. The first is by far the more important: the plaintiff must introduce enough evidence to permit a reasonable trier of fact to find that the defendant was negligent. If in a jury trial the plaintiff introduces insufficient evidence to carry this burden, the court will rule against him, thus keeping the case from the jury. In other words, whether the burden of producing evidence has been met is decided by the judge. The second burden arises only if the first has been met and the case has been submitted to the trier of fact, usually the
jury. The judge will instruct the jury that the plaintiff has the burden of persuasion, or burden of proof, on the issue of the defendant's negligence. Stated otherwise, the jury must find it more probable than not that the defendant was negligent in order to find for the plaintiff.

The technical doctrine known as res ipsa loquitur, if found applicable, will aid the plaintiff in carrying the first burden. Some jurisdictions hold also that the doctrine aids the plaintiff with the second burden. The doctrine applies, as usually stated, where (1) the accident would not ordinarily have occurred in the absence of negligence; (2) the instrumentality causing the accident was in the exclusive control of the defendant; (3) the accident happened without any voluntary action on the part of the plaintiff; and in some jurisdictions, (4) knowledge of the causes of the accident was more accessible to the defendant than to the plaintiff. The important question for our purposes is whether a plaintiff can get his case to the jury merely by proving that he or his decedent received a blood transfusion and that a hemolytic reaction occurred resulting in injury or death. On this point the few cases to date are inconclusive.

Three cases, all in recent years, have raised the question of the applicability of the doctrine to claims arising from blood transfusions. In Sherman v. Hartman, the plaintiff underwent a hysterectomy, and while still under anaesthesia, was given a post-operative transfusion. Her doctor left a nurse on the hospital staff in charge of the continuing transfusion. While the nurse was attending the patient, the needle came out of the patient's vein, and the nurse reinserted it. The nurse then left the patient with an orderly. The needle came out again, causing 200 c.c. of blood to go into the soft part of the patient's arm, discoloring and swelling it. The trial court granted a non-suit as to the hospital, and the jury rendered a verdict for the doctor. On appeal, the court affirmed the judgment as to the doctor, holding that he had no duty to remain in attendance during the transfusion and that the patient was in the care of a registered nurse whom the doctor could assume had the requisite training and knowledge. As to the hospital, the court reversed the order of non-suit, applying the doctrine of res ipsa loquitur. The accident was one which would not in common experience have occurred absent negligence, the hospital had exclusive control of the

process in the persons of the orderly and the nurse, and the plaintiff did not contribute by voluntary act to the process since she was under anaesthesia. On this reasoning, the court held the evidence was sufficient to take the case to the jury. It will be noted that no question of incompatibility of the blood was involved in this case.

In Joseph v. W. H. Groves Latter-Day Saints Hospital, the plaintiff's wife underwent a tumor removal operation and died ten days later of inflammation of the kidney. The husband sued, alleging death was caused by the transfusion of incompatible blood negligently administered by the hospital. The plaintiff alleged negligence in the hospital's typing and matching the blood, administering the transfusion, and failing to stop the transfusion after an unfavorable reaction was or should have been noticed. The jury brought in a verdict for the defendant hospital. The plaintiff appealed, arguing that the trial court should have instructed the jury that the doctrine of res ipsa loquitur applied. The Supreme Court of Utah held that the trial court was correct in ruling that the plaintiff had not laid a foundation for invoking the doctrine. Mere occurrence of a hemolytic reaction in the patient, by itself, was not enough in the opinion of the court to justify a finding of negligence, since the evidence indicated that there was no certainty that there would be no adverse reaction even when the best methods known to medical science were employed in typing and cross-matching. Since the hemolytic reaction could have occurred without negligence, the first requisite for application of the doctrine of res ipsa loquitur was not established.

This case cannot be considered as strong authority that res ipsa loquitur is not applicable when transfusion results in a hemolytic reaction. First, the primary test of applicability of the rule is whether the accident would not ordinarily have occurred barring negligence, not whether a possible explanation could be predicated on non-negligence. There is highly respected opinion in the medical literature even suggesting that hemolytic reaction is invariably the result of negligence. Moreover, in Joseph the plaintiff did not rely on res ipsa in the trial court but got his case to the jury anyway on evidence of actual negligence. Thus the usual operative effect of res ipsa loquitur was

64. 10 Utah 2d 94, 348 P.2d 935 (1960).
achieved. The defendant introduced evidence that the blood of the patient was typed and cross-matched with the donor's blood and that one of the tests used was the Coombs' Indirect Test. No suggestion was offered by the plaintiff's counsel that any other test or precautions could have been employed.

Equally inconclusive is Gillen v. United States,66 a case brought under the Federal Tort Claims Act.67 The plaintiff's wife was delivered of a still-born child at a military hospital and suffered post partum hemorrhaging with attending shock. A blood transfusion was ordered, but she failed to rally and shortly thereafter died of a lower nephron nephrosis. The plaintiff alleged that death was caused by the transfusion of incompatible blood due to the failure of the hospital personnel to determine correctly the wife's blood type. The case was tried before a judge without a jury, who found for the defendant. On appeal to the Ninth Circuit, that court held that the evidence, direct and circumstantial, with whatever dignity the doctrine of res ipsa loquitur added to it, was insufficient to establish the negligence of the hospital. The court assumed that the doctrine of res ipsa loquitur applied but found that under any view as to its operative effect procedurally, it could not change the result of the trial court's decision. The Joseph and Gillen cases are further discussed below under the heading of provable negligence.

In summary, res ipsa loquitur is a procedural device mainly useful in getting a claimant's case to the jury when he has introduced little or no evidence showing negligence on the part of the defendant. Some courts reach the same result without using the res ipsa label. Such a court might hold that transfusing a patient whose blood type is O with type B blood was circumstantial evidence of negligence. We may expect increasing application of res ipsa loquitur to blood transfusion cases, particularly to cases involving hemolytic reaction.

C. Provable Negligence—Transfusions With Incompatible Blood

Most actions for injury or death resulting from blood transfusions are brought on a theory of negligence. The problem of causation is often crucial in such cases. Determination of causation is aided by appropriate tests conducted after the transfusion has been discontinued, following an apparent transfusion reac-

66. 281 F.2d 425 (9th Cir. 1960).
tion. No comprehensive listing of the ways in which negligence can occur in transfusions can be made, but the cases provide illustrations.

1. Introductory Comments

The majority of the cases involving negligence in blood transfusions concern the transfusion of alleged incompatible blood. Several of these cases have been handed down in recent years. It is interesting to note that many of these cases have been won by the defense, either by ruling of the court or by jury verdict. For several reasons these cases are discussed in considerable detail herein. First, negligence cases in particular turn on the specific facts involved, and detailed presentation of the facts aids an understanding of exactly what was decided in the case. Second, these cases are repositories of medical experience in the transfusion process and hold lessons for the formulation of greater safeguards to prevent the recurrence of the particular error. Third, the result of litigation might well turn on the competency of counsel's presentation of the medical evidence; hence a consideration herein of how counsel handled the cases is useful.

2. Post-Transfusion Investigation; Proof of Causation

The most recent incompatibility case is Dibblee v. W. H. Groves Latter-Day Saints Hospital.68 This case is discussed above under the heading Absolute Liability. The plaintiff brought his action on three theories: first, the provable negligence of the defendant; second, res ipsa loquitur; and third, liability without fault, based on a warranty for sale of goods. The patient had died, allegedly of transfusions of incompatible blood. Before the transfusions were given, two registered technologists had made duplicate and independent tests and had found that the blood taken from the patient and that of the donors was identical and compatible. After the transfusions, the hospital confirmed these tests by two duplicate and identical tests by registered technologists and further substantiated this result by a test by a New Jersey Ortho Research Laboratory. Counsel for the plaintiff, upon acquiring this information through discovery procedure, abandoned his claims based on negligence and proceeded to trial only on the theory of breach of an implied warranty of fitness of "goods sold." The case

illustrates the value of sound post-death procedures to investigate the pathological facts.

Post-transfusion tests proved incompatibility of the transfused blood in Redding v. United States.\textsuperscript{69} This suit was brought under the Federal Tort Claims Act.\textsuperscript{70} The case was tried without a jury and resulted in an award of damages of $40,000 to the injured patient and $10,000 to her husband. The plaintiff, whose husband was an Army sergeant, was admitted to Fort Sill Hospital for a vaginal hysterectomy, scheduled for November 4, 1959. In June, 1959, she had been delivered of her seventh child, and at that time her blood was typed as Group O, Rh positive. An enlisted technician whose background consisted of a junior college chemistry course and eleven months in an on-the-job training program at the hospital erroneously typed her blood as Group B, Rh positive, and cross-matched her blood with that in three bottles from the blood bank refrigerator, each labelled B, Rh positive. He concluded that the blood was compatible. The patient was transfused with 1,000 cc. of this blood, and a hemolytic transfusion reaction set in. Another laboratory technician, with a college degree in chemistry and training at the Army technicians’ school, re-typed the patient’s blood and determined it to be Group O, Rh positive. The chief of the laboratory section verified this finding, and the patient was then transfused with O, Rh positive blood, which saved her life. She did suffer severe and permanent injury, however. Colonel Crosby, consultant in hematology to the Surgeon General of the Army, investigated the case and filed a memorandum opinion with the Army. He also testified in the lawsuit. In both instances he argued that although a mistake had been made, the approved procedures, even if followed, were not believed sufficient to protect in all instances against incompatibility. In other words, Colonel Crosby’s argument was that some hemolytic transfusion reactions are bound to occur even if the typing and cross-matching are done pursuant to the highest standards.

The trial court rejected this argument, citing the Army technical manual, T.M. 8-277, Section 91, “Cross-matching.” This manual stated flatly, “This test will reveal any mistakes in blood grouping....”\textsuperscript{71} The court said it was “definitely convinced”

\textsuperscript{69} 196 F. Supp. 871 (W.D. Ark 1961).
\textsuperscript{70} 28 U.S.C. §§ 1346(b), 2671-80 (1964).
\textsuperscript{71} 196 F. Supp. at 877.
that the employees of the United States had been negligent, saying:

Of course, the plaintiffs were unable to prove the specific act or omission of negligence on the part of the defendant's employees, but the facts and circumstances disclosed by the testimony are convincing that the employees of the defendant did know, or should have known by the exercise of ordinary care, skill and ability, that the blood in bottles 241 and 281 was incompatible with the patient's blood.\footnote{72}

No appeal was taken by the government from the decision of the trial judge.

Joseph v. W. H. Groves Latter-Day Saints Hospital,\footnote{73} like the Dibblee case, involved an alleged transfusion of incompatible blood resulting in the death of the patient. In the first trial of the Joseph case, the doctor who had performed the operation on the patient testified that the patient had died as a result of a transfusion reaction, and the supreme court on appeal\footnote{74} characterized the testimony of the lab technician, who refused at trial to concede that any definitive proof existed that the transfusion reaction caused the death, as "evasive." Statements in the hospital records by two doctors called in as consultants, one stating that the patient was going into "renal decompensation ... possibly on the basis of a transfusion reaction," and the other stating that the condition of the patient "is undoubtedly a lower nephron syndrome from hemolytic blood transfusion ..." were not permitted in evidence by the trial court. The jury found for the defendant hospital, and the Supreme Court of Utah reversed, directing a new trial. Refusal to admit these records into evidence was held to be prejudicial error.

On the retrial, the hospital records were admitted into evidence. The jury again returned a verdict for the hospital, the trial court entered judgment thereon, and the Supreme Court of Utah affirmed. It appears to have been virtually conceded by the defense on the second trial that death resulted from a transfusion reaction. The plaintiff asked that the case be sent to the jury on two theories: first, that the hospital was negligent in administering incompatible blood and second, that the hospital

\footnotesize{\begin{itemize}
  \item \footnote{72}{Id.}
  \item \footnote{73}{10 Utah 2d 94, 348 P.2d 935 (1960).}
  \item \footnote{74}{7 Utah 2d 39, 318 P.2d 330 (1957).}
\end{itemize}}
was negligent in not stopping the transfusion after an unfavorable reaction was noticed. The trial court refused to submit the issue to the jury on the first issue (since no negligence had been shown), and refused to charge the jury that res ipsa loquitur could apply. Application of res ipsa loquitur would of course have relieved plaintiff from the burden of showing negligence. The jury found against the plaintiff on the only issue that was submitted to them, the issue of failure to terminate the transfusion. The plaintiff appealed only from the court's ruling on the first issue, not from the jury's finding on the second. Thus the narrow issue before the Supreme Court of Utah was whether res ipsa loquitur could apply to take the case to the jury.

Here the defense counsel successfully utilized through expert medical witnesses the theory that Colonel Crosby later unsuccessfully advanced in the Redding case. This is not to suggest that the decisions are inconsistent, for as indicated, the proof of actual faulty testing of the blood was present in Redding and absent in Joseph.

Almost all the medical witnesses in the second Joseph case expressed the view that transfusion reaction due to incompatible blood was the probable cause of death, although some pointed out that there could be many other causes of lower nephron nephrosis. However, their testimony showed that hemolytic transfusion reaction could occur in unusual cases even though the cross-matching indicated compatibility. An expert in hematology testified that there were 3 to 5 reactions in every 1,000 transfusions, often not caused by negligence, 40 percent of which were fatal. Other expert testimony stated that transfusion reactions occurred without negligence in one-tenth to five-tenths of 1 percent of the cases. Counsel for the defendant hospital argued in his brief:

Based upon these facts we submit it would be grossly unjust to subject a hospital or a doctor or a technician to liability and inference of negligence for something which may not be preventable. The doctrine of res ipsa loquitur was not invented for the purpose of imposing liability upon the innocent merely because a plaintiff is unable to produce any evidence to prove his case.75

The Supreme Court of Utah in affirming the judgment stated that blood had been taken from a healthy donor for the trans-

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fusion, sterile equipment had been used, the donor's blood and the recipient's were typed and cross-matched in accordance with generally recognized standards, including the Coombs' test, and both samples of blood were found to be A, Rh positive. The defense won this case by making a careful showing of the customary procedures used by the hospital, by the fact that nothing appeared in the blood testing that would put the hospital on notice that the blood might be incompatible, and by its presentation of the indicated medical and other expert testimony.

These cases are illustrative of the difficult causation problems posed both for the claimant and the defense in blood transfusion cases. The most intricate causation case to date is *Gillen v. United States.* The opinion of the court disposed of these questions of causation without discussion, but study of the transcript of record discloses bewildering diversity both as to what actually occurred and as to appropriate medical conclusions to be drawn therefrom. The action was brought under the Federal Tort Claims Act for the wrongful death of a serviceman's wife while she was a patient at Brooke Army Hospital, Fort Sam Houston. The patient had been admitted to the Air Force Hospital at Perrin Air Force Base on December 19, 1955. On December 24 at 4:16 p.m. she was delivered of a stillborn child and suffered post partum hemorrhaging. At 4:30 p.m. transfusion of 500 cc. of blood was ordered and begun, and 350 cc. had been transfused when, 75 minutes after transfusion had begun, what appeared to be a hemolytic reaction occurred, manifested by chills and fever. The transfusion was stopped, a blood specimen taken, and the specimen together with the transfusion donor blood was sent to the lab. Neither was then retyped. The patient was then given some 3,850 cc. of Rh negative type blood. On December 26 she was transferred to Brooke in an attempt to save her life, but she died there on January 6, 1956.

At the trial, the testimony and argument were primarily directed to two questions. First, what was the blood type of Mrs. Gillen? Second, did she have a transfusion reaction? On both issues, the medical evidence and the expert medical opinion based thereon were in conflict. As to the first issue, it appeared that the patient had been delivered of a child earlier in the same year on February 25, also at Perrin. She had received at that

76. 281 F.2d 425 (9th Cir. 1961).
time a transfusion of 500 cc. of Rh positive blood. The hematology records indicated that she was Rh positive. However, in the medical records were undocumented statements to the effect that she had an Rh negative history. Thus the medical records were in conflict. Colonel Crosby testified for the defense, and on cross-examination he was asked about this discrepancy, to which he responded: "This was hearsay, the source of which nobody bothered to document. And I, on the basis of that, concluded that the chances were a million to one that the laboratory documents were correct and that the hearsay was wrong."

A doctor's progress report of the case stated as of the time following the apparent reaction, "Retype revealed her to be type O Rh negative and she was given some 3,500 cc. of blood and 4,200 cc. of other fluids." Colonel Crosby disregarded this in reaching his opinion, believing that this was an error and that no intervening retyping occurred. As discussed below, it appears that there was an intervening retyping, however. Colonel Crosby also emphasized that a lab report had the following written across its face: "This woman has in the past been typed Rh negative." This test was reported out as Rh positive in the face of that statement. The Colonel felt that the lab would have exercised exceptional care in typing with this warning before it.

The expert witness for the plaintiff, Dr. Carr of the University of California, testified to his belief from the medical records that she was Rh negative, had been sensitized, and that it was a classic case of transfusion reaction. Further confusion on the issue of her blood type was introduced by the testimony of Sergeant Villa, a blood technician at Perrin. Mrs. Gillen suffered the apparent reaction, and the Rh positive transfusion was stopped. She then was given Rh negative blood. Sergeant Villa went to her room while she was receiving this blood and took more blood from her for retyping. He drew the sample by withdrawing a portion of rubber tube going into the needle already in her arm, which was giving her the blood, and by inserting therein a 10 cc. syringe to withdraw the blood. Then the nurse continued the transfusion, re-connecting the tube to the needle. At this time the patient had already received at least an estimated one-half of her blood volume in transfused blood. Sergeant Villa then typed the sample and found it to be Rh negative.

From a medicolegal view, this procedure would seem to be doubly bad. First, taking blood from a patient, using the same
needle with which she was being currently transfused, raises to a layman the possibility that the recently transfused blood would be obtained, rather than her own. Sergeant Villa believed this was unlikely because of the fast rate of flow of blood through the system; but Dr. Cox of Lettermen Army Hospital, testifying for the defense, said it was possible, based on his own experimentation. Second, taking blood for testing from a patient who has already received in successive transfusions more than her normal supply of blood raised the question whether she had had a transfusion exchange so that all or most of the sample was donor blood anyway. If her original blood had been “essentially completely replaced,” as Dr. Cox believed, by donor blood, nothing useful as to her own blood type could be derived from testing the sample. On this conflicting state of the proofs, the trial judge found that she was an O, Rh positive blood type.

The second issue, regarding the occurrence of a hemolytic reaction, was equally vigorously contested. The patient’s death certificate, medical and clinical reports at the hospital, and the autopsy report all stated that she died from nephrosis caused by incompatible blood transfusions. On this issue, Colonel Crosby concluded that she had not. Although the data available to the persons making the above judgments was consistent with transfusion reaction, other data in Colonel Crosby’s judgment dictated against this finding. First, every time the blood was typed, or cross-matched, it was found compatible. Second, no massive hemolysis was shown. Here, the witness relied on icteric indexes and Van der Bergh tests performed during the period following the apparent reaction. At 9:00 p.m., three and one-quarter hours after the reaction, an icteric index test was performed. Another was made at 10:30 p.m. The doctor testified that had there been a reaction, no icteric test could be made. The reading at 10:30 p.m. was 45; on a third test the next morning at 7:30, it was 44.3. Van der Bergh readings showed “Direct, 4.3, Indirect 2.1;” if a serious reaction had occurred, he said, the readings would be between 5 and 10. Third, Colonel Crosby held that the occurrence of a transfusion reaction usually manifests itself in instability of the vasomotor system with a fall in blood pressure. Here, blood pressure was normal over the entire period.

The alternative explanation given for the lower nephron nephrosis by Dr. Cox was that she had retained placental tissue and that the doctor’s manual attempts to deal with that condi-
tion brought on the shock. Here again, the trial judge found the facts in accordance with the theories of the defense.

It is manifest that the result turned on the decision of the finder of fact—in this case the trial judge. As to the facts, if the judge had decided the case the other way, the record would equally support his finding. The likelihood is that a jury would have decided this case in the plaintiff's favor. The Federal Tort Claims Act\textsuperscript{78} is one of the actions against the United States that "shall be tried by the court without a jury...."\textsuperscript{79} Thus the plaintiff in Gillen was not entitled to a jury trial. The plaintiff's lawyers have speculated that a right to jury trial might arise if the individual tort-feasor could be joined as a defendant with the government, but this view appears doubtful.\textsuperscript{80} At any rate, the latter case affords no comfort to the non-governmental hospital or blood bank, which must anticipate that claimants will ordinarily demand trial by jury.


No catalogue can be compiled to indicate all the ways in which liability for negligence may arise; life is always more imaginative than the most free-ranging mind. The cases which have arisen give some indication of the errors of the past and emphasize the need for rigorous care and scrupulous adherence to sound standards of procedure.

In Weiss v. Rubin,\textsuperscript{81} the plaintiff sued an anesthetist, a surgeon, and a hospital for the wrongful death and pain and suffering of a surgery patient to whom was administered blood intended for another. (The anesthetist sued was principal for another anesthetist who actually assisted at the operation.) A jury verdict was rendered against all three defendants jointly for $130,000. This was reduced to $90,000 by remittitur of the appellate court, and as so reduced, was affirmed by the appellate division and then by the Court of Appeals of New York. Much of the discussion in the appellate reports concerns the liability of the doctor only; one judge in the appellate division and two on the court of appeals thought that the doctor should not be held liable.

\textsuperscript{78} Id.
The facts are substantially set forth in Judge Ughetta's dissenting opinion in the appellate division:

During the course of a delicate and complicated procedure upon decedent, the surgeon, defendant Pulrang, was told by the anesthetist that the latter had the patient's blood ready. The anesthetist asked 'Shall I give it?' The surgeon responded in the affirmative. The circulating nurse had come into the operating room with a bottle of blood on which there was a slip inscribed with the name of the patient, type of blood and the name of doctor. The slip showed that the blood was for another patient, previously operated on, not by defendant Pulrang, at which operation, however, the circulating nurse and anesthetist also had been present.

This information on the slip was entirely different from the facts with respect to decedent. Yet the registered nurse turned the bottle over to the anesthetist, implying that the blood was intended for decedent. The anesthetist had a chart showing the type of blood of decedent. He testified that it was his duty to check the blood and that a surgeon does not check blood. He, the anesthetist, did not perform that duty.

Neither the anesthetist nor the circulating nurse was sterile. There is a shield between the anesthetist and the surgeon. To double-check the bottle the surgeon would have been required, not merely to divert his concentration from the serious task at hand, but actually to abandon the patient by leaving the sterile field. As the anesthetist testified, the surgeon does not check blood; that is the function of the anesthetist. There is no proof of malpractice on the part of the surgeon. He had the right to rely on the competency of the anesthetist and the hospital staff.

The court of appeals found that on the record the question of the negligence of the defendant surgeon was properly submitted to the jury. The proof showed that it was his duty to initiate the blood bank order, that he knew he had not ordered blood, and that although it did occur to him to ask how the blood got into the operating room, he did not do so. The dissenting judges felt that since it was the duty and sole responsibility of the hospital to prepare and administer blood transfusions, the doctor was not

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82. 11 App. Div. 2d at 819, 205 N.Y.S.2d at 276 (dissenting opinion).
negligent. "If Doctor Pulrang had given a written order for a transfusion in this instance, transfusion would have been administered exactly as it was without further participation by Doctor Pulrang." The hospital's anticipating the need without his written order did not, in the opinion of these judges, change his responsibility.

_Berg v. New York Society for the Relief of the Ruptured & Crippled_ involved a technician's error in reporting the patient's blood as A, Rh positive when it was actually A, Rh negative. The patient received 500 cc. of Rh positive blood on March 19, 1947, and another 100 cc. on March 26, at which time a reaction was visible and the transfusion was stopped. She was discharged, became pregnant, was tested again and found to be Rh negative. The fetus was indicated to be Rh positive, since her titer index arose substantially during pregnancy. The fetus died on December 2, 1947, but delivery was delayed until December 31. The trial court found that the technician conceded to make an error in designating the patient's blood factor and that she was infused with blood of the wrong factor. A judgment for the plaintiff of $17,500 and for her husband of $2500 was affirmed by the court of appeals. Most of the discussion in the opinions in the various stages of litigation concerns the applicability of the then New York charitable immunity doctrine.

_In Parker v. Port Huron Hospital_, the plaintiff's wife was admitted to the hospital for a hysterectomy. The evening of her admission, a Mrs. Weber, a lab technician, made pre-operative preparations and blood tests. She was the only lab technician on duty and was tired and overworked that evening. In drawing a blood sample she didn't mark the patient's name or identification on the tube while at her bedside; she simply dropped a slip of paper around the tube. This procedure was contrary to the universal standard practice required in this and other hospitals. On the same trip, she obtained samples of blood of two other patients. She returned to the lab with the three samples and commenced typing. At this point she was interrupted to do an

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83. 9 N.Y.2d at 234, 173 N.E.2d at 792, 213 N.Y.S.2d at 67 (dissenting opinion).
85. In Necolayff v. Genessee Hosp., 270 App. Div. 648, 61 N.Y.S.2d 832 (1946), the patient was mistakenly given a transfusion intended for another patient, but no incompatibility reaction was mentioned by the court. This case is discussed in the text under _Assault and Battery._
86. 361 Mich. 1, 105 N.W.2d 1 (1960).
immediate blood type for a fourth patient. On her return to her work on the first three, she confused the sample tubes and the identification slips, designating Mrs. Parker's blood as A, Rh positive rather than the correct O, Rh positive. During the operation Mrs. Parker was administered one unit and left the table in apparently good condition, but that afternoon she had a reaction; 13 days later she died. The cause of death was reported as "acute nephrosis (lower nephron syndrome) incompatible blood transfusion." She had been taken to surgery at 3:00 p.m. on the day of the transfusion, and the error was then found. In permitting recovery in this case, the Supreme Court of Michigan overruled its doctrine of charitable immunity.

In Goels v. J. K. & Susie Wadley Research Institute & Blood Bank,87 the blood bank successfully pleaded the defense of charitable immunity. The plaintiff argued that the transfusion was a "sale" of blood and that charitable immunity should not apply thereto. The court, however, decided that the transfusion was a "service" to which charitable immunity did apply, leaving open the question of whether a "sale" of blood is outside the application of charitable immunity. Thus the court did not have to consider the plaintiff's allegations of negligence. The testimony of the plaintiff tended to prove the following had occurred. The personal physician of the decedent left an order for the blood bank to type and cross-match her blood and have 500 cc. available for surgery the following morning. An employee of the blood bank took the sample, labelled it, and carried it to the blood bank center. Unfortunately, a technician whose duty it was to type and cross-match her blood filled in type "A1B" on her card. That type blood was sent to the hospital and used in her transfusion. A reaction resulted during transfusion. Her doctor discovered the reaction and called in the director of the blood bank, who ordered an investigation. It was revealed that the original sample of her blood was still in the refrigerator, unopened. The practice of the blood bank was never to replace the cork after the sample had been used, so the evidence indicated that no tests had ever been performed. The original sample and her blood were shown to be type O. The plaintiff, decedent's husband, sued for damages of $451,000, alleging that the technician was negligent in the typing, that the technician was an incompetent employee, and that the blood bank

was negligent in hiring him. It appeared that another sample of blood with type A1B was in the refrigerator, and the technician had simply taken the wrong tube for testing.

It is noteworthy that all the cases discussed were handed down since 1956. Only two earlier cases involving alleged hemolytic transfusion reactions appear to be reported. In *National Homeopathic Hospital v. Phillips*, the fact that incompatible blood was erroneously tested and reported as compatible by a hospital technician appears to be assumed true. The court discussed only whether the hospital was the employer and hence liable for the acts of the technician. In *Mississippi Baptist Hospital v. Holmes*, the technician correctly typed the blood of Mrs. Holmes and that of Mrs. Holder, two patients on the same floor, but inadvertently switched the labels. Seven hundred cc. of type 2 blood (Mrs. Holder's type) was given to Mrs. Holmes (type 4), and the latter had a hemolytic reaction. Mrs. Holmes' blood was then re-typed and the error discovered. She was given another transfusion, but to no avail. In this case, the Supreme Court of Mississippi overruled the previous decisions in that state establishing charitable immunity.

These are all recent cases, and the incidence of cases of this type is increasing. Perhaps generalizations drawn therefrom would be premature, but some might be made. It is to be noted that the claimant's case is considerably more difficult when he cannot rely upon implied warranty or statutory violation as his theory of the action but must rely on provable negligence. Considerable procedural aid would be afforded claimants if the doctrine of res ipsa loquitur should receive broad application in this area. The courts will increasingly be faced with requests to apply this doctrine in cases in which the plaintiff can offer evidence from which a finding can be made that a hemolytic reaction occurred but cannot go further and show what nature of blood incompatibility existed or where the fault lay. The conclusion that a court will reach on these questions will depend to a considerable extent on the scientific opinion presented to them through the testimony of the experts.

Lacking these procedural aids, the claimant has the burden of showing conduct of the hospital or blood bank which falls below the ordinary care to be expected of persons in those professions.

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88. 181 F.2d 293 (D.C. Cir. 1950).
89. 214 Miss. 906, 55 So. 2d 142 (1951).
This standard is not a static one. As medical science adds new knowledge of testing blood compatibility, and as hospitals and blood banks establish additional procedural safeguards in the transfusion process, the law will incorporate these procedures into its judgment on the conduct of the persons involved.

4. Statute of Limitations

Quinton v. United States\(^90\) was another action brought under the Federal Tort Claims Act.\(^91\) The plaintiff charged that the defendant, through its employees at Larson Air Force Base, in Washington, negligently administered wrong type blood in transfusions given his wife. The complaint alleged that the plaintiff was in the Air Force stationed at Larson, that his wife was a patient in the base hospital, and that on May 17, 1956, she received three transfusions. It was alleged that, unknown to the plaintiff or his wife, his wife received Rh positive blood, while her correct blood type was Rh negative. No injury was manifested after the transfusions, and plaintiff and his wife remained unaware of the condition until June 1959, during the wife's then pregnancy. As a result of the transfusion of the wrong type blood, the wife gave birth to a stillborn child on December 17, 1959. It was alleged that she could not safely bear other children without, in all probability, their being stillborn, blind, or mentally defective. The complaint was filed on August 29, 1960. The defendant moved to dismiss for lack of jurisdiction on the ground that the two year period of the statute of limitations had lapsed.\(^92\) The court held that the wrong occurred, assuming the facts of the complaint to be true, on May 17, 1956, and hence that the statute of limitations had run. It is to be noted that this case was decided entirely on the complaint and the motion to dismiss so that no evidence in substantiation of the plaintiff's case was presented. The crucial question was, when did the claim accrue? The government contended that it accrued when the transfusions were given, the plaintiff that it did not accrue until June of 1959 when he gained knowledge of the defendant's negligent act. The court held that Washington law governed, the law of the state in which the act or omission occurred. The court read the Washington decisions as determinative that the cause of action accrued on the date of the

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wrong. It then reasoned that the wife had suffered immediate injury when the wrong blood was injected into her veins, since her capacity to bear healthy children was lost from that moment.

D. Provable Negligence—Transmission of Homologous Serum Hepatitis

Transfusing blood known to contain hepatitis virus or failing to screen donors using currently approved screening techniques could lead to a finding of negligence. However, it has been held that where transfusion is indicated, the counter-risk of hepatitis infection need not be called to the attention of the patient. Failure to utilize recognized techniques for treating blood products to eliminate hepatitis virus can constitute actionable negligence.

1. Transfusions with Whole Blood

No appellate court has yet considered whether a blood bank or a hospital might be found negligent for supplying blood containing the hepatitis virus. The case closest in point is Fischer v. Wilmington General Hospital.\(^9^3\) This is a lower court opinion, apparently not appealed. Since this is the only reported case, it is presented herein in some detail. Not only the opinion of the court but a perusal of the pleadings and affidavits in the record has been relied upon.

The plaintiff, Mrs. Fischer, was admitted to the hospital for treatment in connection with an incomplete abortion. Before her scheduled operation she suffered substantial bleeding, and her surgeon ordered the administration of 500 cc. of whole blood. She was released in a few days but one month later was readmitted for treatment of viral hepatitis. She sued the hospital for $50,000 damages, alleging that she contracted the disease as a result of the transfusion; her husband joined in the suit, asking on his own behalf damages of $1,784 for medical expenses and $20,000 for loss of her services.

The complaint alleged that the hospital was negligent in administering the blood in that (a) no test was made to determine whether the blood was infected by any foreign disease; (b) the defendant hospital should have known that the blood was, or could have been, infected by virus or other disease; (c) so knowing, the hospital failed to advise the plaintiff; (d) the hospital failed to exercise the care required of them in that the source of the whole blood gave them reason to believe it was infected by

\(^9^3\) 51 Del. 554, 149 A.2d 749 (Super. Ct. 1959).
a virus or other disease. The hospital filed an answer admitting administration of the blood and denying all other allegations.

Delaware has adopted rules of civil procedure based on the Federal Rules, and pursuant to Rule 56 thereof, the defendant filed several affidavits from doctors and specialists in blood banking operations. The plaintiff filed counter-affidavits of herself, her husband, and two doctors. Summary judgment can be granted only if the sworn affidavits submitted by the moving party clearly show that there is no question of fact involved, and the affidavits of the answering party do not create a question of fact by controverting propositions in the moving party's papers. The courts are hesitant to grant summary judgment unless there is clearly no factual question to be litigated. In the argument on the motion, the plaintiff abandoned all of his allegations of negligence except one, that the hospital, "knowing that the said whole blood administered to the Plaintiff, Yolanda Fischer, was, or could have been infected by a disease or virus, failed to so advise Plaintiff, Yolanda Fischer, of its knowledge." Counsel for defendant argued that this allegation confused the theory of negligence with the theory of assault and battery; only in the latter theory of the case, it was argued, was consent necessary to the giving of a transfusion.

The defendant's affidavits, from affiants whose background and expertise was uncontested, said that there was no known method by which the virus could be detected or destroyed in whole blood; that the blood was procured under conditions which impose all reasonable safe-guards to assure that it does not contain the virus; that the patient had been bleeding briskly; that hemorrhages and resulting shock were the prime cause of maternal death in the United States; and that the danger of fatality overrides the admitted risk of the patient's contracting hepatitis. The affidavit of a Delaware physician, Dr. O. N. Stern, contained the following statement:

[It is not my practice or the practice generally within the medical profession in this locality to advise patients of the risk of such infection, since the psychological and psychosomatic effect of the alarm which would be produced by such advice would run counter to the beneficial effect sought to be produced by the transfusion itself.]

94. Id. at 556, 449 A.2d at 750.
95. Id. at 551, 449 A.2d at 753.
The plaintiff's counter affidavits did not controvert these statements. Mrs. Fischer stated that no one told her that she would receive a transfusion, nor was her consent asked. She also stated that she didn't think she was bleeding enough to receive a transfusion, but the court disregarded this as not being a tenable judgment as against that of the physicians. Mr. Fischer stated that his consent was not asked, although he was informed that transfusion was necessary. He attempted to give his own blood, but the transfusion was completed before his donation. No one told him of the serious risks that might be involved in transfusion. One doctor stated for the plaintiff that in his opinion the jaundice did result from a blood transfusion; another stated that transfusions were very serious matters and "should not be given unless in the exercise of reasonable judgment they are needed." 96

On these affidavits, the court granted summary judgment for the defendant hospital. No support was found in the affidavits for a finding of negligence, and the court gave its opinion that it would constitute extreme neglect to permit the risk of serum hepatitis to prevent the administration of a blood transfusion when needed by the patient. Considerable reliance was placed on the statement quoted above, that there might be risks in telling a patient of the potential danger in transfusion. The court held that there was no legal duty to tell the patient of the risk of hepatitis and hence, no negligence.

If a plaintiff could show that the transmission of jaundice was caused by negligence, he could recover. Again, the application of res ipsa loquitur would aid his problems of proof. It is likely that recognized techniques for screening donors will establish a standard of care, and conduct falling below this standard would constitute a breach of duty owed to the recipient of blood. In the Fischer case, the defense was aided by the affidavit of Dr. Thomas R. Boggs, Jr., associate director of the Philadelphia Serum Exchange, who stated that there being no known technique by which viral hepatitis may be detected in blood, the Exchange, in conformity with practice of similar licensed commercial blood banks, sought to exclude prospective donors who may be carriers, by asking (a) whether they have ever suffered any stomach cramps or pains; (b) whether they have ever had jaundice; (c) whether they have ever had a yel-

96. Id. at 560, 149 A.2d at 752.
lowing condition of the whites of their eyes; (d) whether they have ever been in the company of a person suffering from jaundice. If an affirmative answer was received to any of the questions, the donor was rejected. Dr. Boggs also stated that the units involved in the Fischer transfusion had been delivered from the Exchange and that none of the donors of this blood had given any history of illness or symptoms of illness attributable to viral hepatitis infection.

Perlmutter v. Beth David Hospital also involved serum hepatitis allegedly contracted from a whole blood transfusion. There, however, the plaintiff did not allege negligence, arguing solely that the blood was “sold” to her and that implied warranties of quality were breached in that the blood contained hepatitis virus.

2. Transfusions with Plasma

Three cases have arisen involving serum hepatitis allegedly contracted through transfusions with plasma. In Merch & Company v. Kidd, discussed above, the theory of the plaintiff's action was that the administration of plasma contaminated with the virus violated the Pure Food & Drug Law of Tennessee. Judgment for the plaintiff on a jury verdict based on this theory was reversed by the appellate court. No allegation of negligence was made. In Parker v. State and Hidy v. State actions were brought against the State of New York by representatives of the deceased who had died due to receiving pooled plasma infected with hepatitis virus. The state was allegedly at fault in that it had knowledge of the incidence of homologous serum hepatitis due to the use of pooled plasma and nevertheless distributed war surplus plasma, failing to warn physicians of the danger. In both cases it was held that the state could rely on the professional knowledge of the physicians and assume that they would use a medical agency of limited medical usefulness under limited conditions. Parker was an emergency transfusion case, whereas in Hidy the patient had been in the hospital for some 15 hours

97. 308 N.Y. 100, 123 N.E.2d 792 (1954).
98. 242 F.2d 592 (6th Cir. 1957).
prior to the transfusion, and his blood had not been typed or cross-matched in preparation for possible emergency. The court in Hidy strongly intimated that since both whole blood and irradiated plasma were available, the hospital and the physician might have been found negligent in not using one of the two. (The case arose in the brief interval during which irradiation was considered to be an effective method of killing the hepatitis virus; this aspect of the case is now of interest only to indicate how quickly new medical theories might be made the predicate for a finding of negligence.) The court held in both cases that the state was not liable.

As pointed out above, the failure of a hospital or blood bank to use the six months storage at room temperature technique to eliminate hepatitis from plasma might be held to constitute negligence. Here again, expert testimony and reference to medical literature would dictate the result.

E. Provable Negligence: Liability to Blood Donors

Blood banks and hospitals have a duty to exercise due care toward donors of blood. Often, damage actions grow out of situations in which difficulty is experienced in inserting the needle in the vein. Failure to follow customary procedures for avoidance of contamination can support a finding of negligence. Donors must be given reasonable protection during their entire visit to the hospital or blood bank.

Due care, including the exercise of ordinary professional skill, is owed by blood banks and hospitals and their personnel to donors of blood. Again, there exists only a relatively small number of illustrative appellate court cases. Mrachek v. Sunshine Biscuit, Inc., 102 while not a blood donor case, illustrates that the most routine drawing of blood can give rise to a substantial claim for damages. The plaintiff applied for employment with the defendant and was required to submit to a blood test to determine whether she had a communicable disease. The physician twice inserted the needle in her left arm, probing beneath the skin many times, but failed to draw blood. He then successfully drew the blood from her right arm. Her left hand lost all feeling and developed a painful, claw-like paralysis. She was unable to use her left hand. The trial judge found that the physician had been negligent and awarded damages of $30,-

000. This was reduced to $15,000 on appeal. The only issue raised on the appeal was whether the employer was liable if the physician was negligent.

In *Coo v. Saskatoon*,

In another Canadian case, the plaintiff alleged that an intern in the defendant hospital and been negligent in taking blood from her to be used in a transfusion to her father. Her veins were very small, and difficulty was encountered in inserting the needle. Her left arm was tried first, then her right, then the left again. Finally because of pain the attempt was abandoned. Her arm was dressed, and she left for home. She was examined several times in the next several days and then treated in the hospital for nine days for an infection. The trial court found no evidence of negligence but held that such an infection would not have arisen without negligence on the part of the hospital and awarded damages of $1500 to the patient and $730 to her husband. On appeal, this was reversed and judgment directed for the hospital, based on the medical testimony in the record to the effect that the taking of blood had been in accordance with professional standards; one hundred donors had given blood that week and no other infection had been reported. Further testimony showed that infection could come from outside the body or from infection within the body. The court said that this was a risk that every blood donor must run and refused to apply res ipsa loquitur. The gist of the ruling is that the evidence in the record was insufficient to show that the probability that the infection arose from negligence of the defendant was not shown to be greater than the probability that it arose in another way. Courts frequently say that verdicts cannot be rested on mere conjecture or speculation. Another court on these same facts might have permitted the verdict to stand.

*Brown v. Shannon West Texas Memorial Hospital* was another action brought for infection in the plaintiff's arm, allegedly brought about through the use of a nonsterile needle in taking a blood donation. Baylor University would send a "collecting unit" kit including sterilized needles to the defendant hospital, which the latter used to take blood donations. The donor plaintiff sustained undisputed chronic infection of her arms and found

it difficult to bend her elbow after making the blood donation. She had been given a hypodermic injection with a small needle, after which a larger needle had been inserted to draw blood. Great difficulty was encountered in inserting the needle in a vein; the process took more than six minutes and was very painful. Suit was brought against both the hospital and Baylor. The trial court withdrew the case from the jury and ruled for both defendants, and this judgment was affirmed. Again, the medical testimony determined the outcome. One doctor testified that there was no way to determine at what time infection was introduced into the arm; another, that in the absence of a culture of the things used, the source of infection could not be determined. The blood bank director testified that tests were run on blood to determine whether any contamination existed and that records made the day Mrs. Brown’s blood came in showed no contamination. If the needle had been contaminated, it was argued, then her blood would be similarly contaminated. The court held that the plaintiff had failed to prove that the infection was caused by a contaminated needle.

Failure to follow the customary procedure for avoidance of contamination can support a finding of negligence. In *Kalmus v. Cedars of Lebanon Hospital* 106 a nurse allegedly administered a hypodermic injection with an unsterilized needle and syringe. The plaintiff testified that the nurse gave her the injection without preparing her by scrubbing her skin with an alcohol sponge as was the custom in the area. There was no dispute that her thigh was abscessed, and direct expert testimony was offered that use of an unsterile needle was the cause of the abscess. The evidence was held sufficient to support the verdict of $3,000 for the plaintiff. In *Peck v. Charles B. Towns Hospital* 107 also a hypodermic infection case, expert testimony was introduced that the defendant’s method of sterilization by boiling in water was inadequate and improper by recognized standards. Further, it was testified that particular care was needed in sterilizing equipment for injection of known drug addicts. The dismissal of the plaintiff’s case was held to have been error, and a new trial was awarded. *General Benevolent Association v. Fowler* 108 involved infection of a patient’s arm by a piece of needle

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108. 210 Miss. 578, 50 So. 2d 137 (1951).
which broke off unknown to the nurses administering glucose. The arm swelled and discolored, and a physician later extracted the broken piece of the hollow needle therefrom with tweezers. The nurses testified that they had never previously seen a needle break in this manner. The circumstantial evidence was considered sufficient to support a finding of negligence.

Donors must be given reasonable protection during their entire visit to the hospital or blood bank. In Boll v. Sharpe & Dohme, Inc., a109 a paid donor allegedly fell suffering permanent injuries due to his fainting during or immediately after a blood donation. He alleged that the company was negligent in the protection afforded him as a donor. The court held that he could recover if he proved negligence, despite his having executed for the company a covenant not to sue. The plaintiff in Saltzer v. Reckford a110 also claimed that he fainted, the defense claiming that he had had a convulsion. A sample of blood had been taken by a nurse for analysis, after which the patient had informed the nurse that he did not feel well. The nurse seated him on a stool in the middle of the room, a few feet away from a sterilizer, and left him holding his head down. He then fell, hitting the sterilizer and receiving burns. Judgment was for the defendant based on medical testimony that the nurse was reasonable in not expecting the patient to faint so long a time after the taking of blood.