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# POISON CONTROL CENTERS, FROM ASPIRIN TO PCB'S AND THE SCARLET RUNNER BEAN: A STUDY OF LEGAL ANOMALY AND SOCIAL NECESSITY

# Aidan R. Gough\* Kathryn M. Healey\*\* Sandra R. Rupp\*\*\*

"Within the infant rind of this small flower Poison hath residence . . . ."

(W. SHAKESPEARE, ROMEO AND JULIET)

1983 by Aidan R. Gough, Kathryn M. Healey, and Sandra R. Rupp

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1. W. Shakespeare, Romeo and Juliet, act ii, scene 3, line 24, in The Complete Works Of Shakespeare (Annot.) 405 (H. Craig ed. 1951).

#### I. INTRODUCTION

Given the mounting complexities of industrial society and the concomitant burgeoning of its technologies, far larger numbers of human beings are at risk of toxic exposure than was the case even a decade ago. To deal with these exposures and ameliorate their harmful effects, highly specialized knowledge and resources are required. The number of dangerous agents, and the body of knowledge and the treatment regimens to deal with them, have outpaced the abilities of emergency and primary care health providers to retain or retrieve the necessary information and handle exposures unaided. Thus, poison control centers have developed as resources of specialized expertise and information to serve health care providers and citizens at large.<sup>2</sup>

Poison control centers have become an indispensable part of the emergency care delivery system.<sup>3</sup> Though comprehensive data are difficult to obtain, a national study in 1979 indicated that poisonings accounted for 10% of all hospital emergency department visits, 9% of all ambulance transportation, and 5% of all hospital admissions.<sup>4</sup>

The following three examples illustrate the poison control center's diversity of response and indispensability to the health and safety of the public:

<sup>†</sup> Aspirin is perhaps the commonest of drugs, but it can be devastatingly dangerous—indeed, frequently lethal—if taken in excessive quantities, particularly by children. The proper management of aspirin overdoses is complex.<sup>5</sup> Blood level assessment six hours after ingestion is a critical point, and a patient who initially appears to be suffering few ill effects can very swiftly deteriorate be-

<sup>2.</sup> See generally S. MICIK, DEVELOPING REGIONAL POISON SYSTEMS (HEW 1979). The first poison control center was established in Illinois in 1953, in conjunction with the Illinois Department of Health and seven Chicago-area hospitals and at the behest of the Illinois Chapter of the American Academy of Pediatrics. Id. at 8. The San Francisco Bay Area Regional Poison Control Center was established in 1979, and services more than five million people in eleven northern California counties. San Francisco Bay Area Regional Poison Control Center, Summary of Cumulative 2-year Statistics From February 1979 to February 1981 (1981) [hereinafter cited as Summary].

<sup>3.</sup> Micik, Emergency Medical Services and Poison Control, 12 CLINICAL TOXI-COLOGY 309 (1978) [hereinafter cited as Emergency Medical Services].

<sup>4.</sup> S. MICIK, supra note 2, at 1.

<sup>5.</sup> Cf. Rewis v. United States, 503 F.2d 1202 (5th Cir. 1974).

yond retrieval.<sup>6</sup> Specialized competence is requisite to the proper treatment of these cases. The San Francisco Bay Area Regional Poison Control Center (hereinafter referred to as the Bay Area Regional Center) has received approximately 110 cases of aspirin or acetaminophen (Tylenol)<sup>7</sup> poisoning per month in the first six months of 1983.<sup>8</sup>

<sup>†</sup> On November 13, 1982, a young man in his twenties ate—precisely why remains obscure—a plant with bright red flowers. Several hours later he lay near death in a community hospital on the northern California coast, his cardiac rhythms wildly erratic and unable to sustain life if uncorrected. The hospital lacked the resources to identify the plant, and thus, could not adequately treat the patient. Through the information provided by the hospital, the poison control center was able to identify the plant as a "Scarlet Runner Bean"<sup>9</sup> and to recommend the best courses of treatment. The patient accordingly emerged from the incident alive and fully intact.<sup>10</sup>

<sup>†</sup> On May 15, 1983, a transformer caught fire in a high-rise building at One Market Plaza in the City of San Francisco.<sup>11</sup> The transformer contained complicated chemicals known as polychlorinated biphenyls, or PCB's, which when burned at certain temperatures yield other substances known as dibenzofurans.<sup>12</sup> Both PCB's and dibenzofurans are considered highly toxic, having potentially significant immunosuppressive and carcinogenic ef-

9. Phaseolus coccineus; Poisindex microfiche system entry J02, current through August, 1983 (Micromedex, Inc.). The plant contains cyanide compounds and glycosides which seriously effect cardiac function. Id. It has a long history of toxicity, particularly in Europe. J. KINGSBURY, POISONOUS PLANTS OF THE U.S. AND CANADA 347 (1964).

10. Calls observed at the Bay Area Regional Center (Nov. 13, 1982).

11. San Francisco Chronicle, May 16, 1983, at 1, col. 4.

12. Letz, The Toxicology of PCB's—An Overview for Clinicians, 138 West J. of Med., 534-35 (Apr. 1983); HAZARD EVALUATION SYS., CALIFORNIA DEPT. OF HEALTH SERVICES/DEPT. OF INDUSTRIAL REL., THE TOXICOLOGY OF PCB'S: AN OVERVIEW WITH EMPHASIS ON HUMAN HEALTH EFFECTS AND OCCUPATIONAL EXPOSURES 16-20 (1981).

<sup>6.</sup> R. DREISBACH, HANDBOOK OF POISONING 289-95 (10th ed. 1980); L. GOODMAN, A. GILMAN, & A. GILMAN, PHARMACOLOGICAL BASIS OF THERAPEUTICS 695-97 (6th ed. 1980); see Rewis v. United States, 503 F.2d 1202, 1207, 1211 (5th Cir. 1974).

<sup>7.</sup> Tylenol<sup>®</sup> is the widely-marketed brand name of acetaminophen produced by McNeil Laboratories.

<sup>8.</sup> Interview with Gerald Joe, Pharm. D., Poison Control Pharmacist, Bay Area Regional Center and Assistant Clinical Professor of Pharmacy, University of California at San Francisco (June 14, 1983).

fects.<sup>13</sup> A large number of people were exposed to the profuse smoke. (It should be noted that had the fire occurred during work hours, the numbers would have increased dramatically.) The Bay Area Regional Center received approximately 1000 incident-related calls during the ensuing two weeks.<sup>14</sup>

Commonly, regional poison control centers provide assistance for accidental poisonings, drug reactions and overdoses, toxic occupational or environmental hazards, and any intoxication or toxicological problems.<sup>15</sup> Center personnel assess the exposure and provide information on the need for treatment, including whether first aid measures are appropriate or whether the patient needs to be taken to a hospital emergency department or to be seen elsewhere by a physician. They furnish professional advice on regimens of treatment to health care personnel. They also provide information on sources of educational materials, the prevention of poisonings and home safety; and conduct training programs for physicians, nurses, and other professionals in the management and prevention of toxic encounters.<sup>16</sup>

From its inception in February, 1979, until February, 1981, the Bay Area Regional Center received 31,455 calls, an average of 43.09 calls per day.<sup>17</sup> Of these 21,955 calls involved cases of poisoning and 9,500 involved requests for information.<sup>18</sup> At the present time, the Center averages roughly 110 calls per day.<sup>19</sup>

Consumers account for approximately 60% of all calls, and health care professionals, including nurses, pharmacists, physicians, and veterinarians, for the remainder.<sup>20</sup> Calls originate at the family home in 61.5% of the cases, while emergency departments of acute care hospitals, the next most fre-

- 19. McKinney, supra note 14.
- 20. Summary, supra note 2, at 3.

<sup>13.</sup> HAZARD EVALUATION SYS., CALIFORNIA DEPT. OF HEALTH SERVICES/DEPT. OF INDUSTRIAL REL., THE TOXICOLOGY OF PCB'S AN OVERVIEW WITH EMPHASIS ON HUMAN HEALTH EFFECTS AND OCCUPATIONAL EXPOSURES 16-20 (1981).

<sup>14.</sup> Interview with Howard McKinney, Pharm. D., Poison Control Pharmacist, Bay Area Regional Center, and Assistant Clinical Professor of Pharmacy, University of California at San Francisco (June 12, 1983) [hereinafter cited as McKinney.]

<sup>15.</sup> See generally S. MICIK, supra note 2.

<sup>16.</sup> Summary, supra note 2, at 2; S. MICIK, supra note 2, at 46-52.

<sup>17.</sup> Summary, supra note 2, at 3.

<sup>18.</sup> Id.

quent call sites, account for 23.1% of the cases.<sup>21</sup> The remaining calls are made from workplaces, physicians' offices, and hospital wards.<sup>22</sup>

Nationally, the development of poison control centers has been largely erratic and haphazard, with no regulatory scheme to accomplish effective regional distribution or quality control.<sup>23</sup> A national study in 1979 identified 639 centers in the United States.<sup>24</sup> Illinois had 103 centers for a population of approximately 10 million; California had nine centers for a population of almost 25 million.<sup>25</sup>

The range of available resources, the training and function of personnel, the modalities of operation, and the methods of quality assurance appear to vary greatly from center to center. At one end of the spectrum are centers that are truly regional in scope and meet the American Association of Poison Control Centers' (hereinafter AAPCC) standards for certification as a regional center.<sup>26</sup> These centers have extensive toxicology resources and 24-hour availability of trained poison information specialists.<sup>27</sup>

At the other end are "centers" which have few if any library or other resources, and use clerks or even volunteers to handle calls. They either refer callers to another resource, or themselves call elsewhere, even in routine cases—often, one suspects, to a certified center which would have been a more appropriate place for the call in the first instance.<sup>28</sup> (It may be noted that the latter practice suggests a greater danger than may be readily apparent: Unskilled staff personnel lacking adequate resources are also unlikely to have the knowledge to ask the right questions of callers, and may not obtain an adequate history of the exposure or the patient.)<sup>29</sup>

26. AM. ASS'N OF POISON CONTROL CENTERS (AAPCC), CRITERIA FOR DESIGNA-TION AS A REGIONAL POISON CONTROL CENTER (1982).

27. According to these standards, poison information specialists would be considered qualified if the persons held degrees "and/or [were] qualified for licensure in nursing, pharmacy or medicine or [had] equivalent training or experience, plus training and/or experience in toxicology and poison information sciences." *Id.* at III(E)2.

28. See Emergency Medical Services, supra note 3, at 311.

29. See Veltri, Regional Poison Control Services, 17 Hosp. Formulary 1469, 1471 (1982).

<sup>21.</sup> Id.

<sup>22.</sup> Id.

<sup>23.</sup> S. MICIK, supra note 2, at 1, 13.

<sup>24.</sup> Id. at 10.

<sup>25.</sup> Id.

A recent study comparing the responses of regional and nonregional poison control centers to particular poisoning situations concluded that there were significant differences, and "the data strongly suggest that regional poison centers provide better and more consistent poison information than do nonregional centers."<sup>30</sup>

One commentator has noted that:

Resources, particularly manpower, are spread over too many centers resulting in inadequate staff, expertise, experience and budget. Few centers have any staff and existence independent of the emergency room [sic]. Information calls are answered by an emergency department clerk, or available nurse or physician, many of whom are simply rotating through the emergency department and know little more than the caller.<sup>31</sup>

Even in the case of centers which belong to the AAPCC and meet its criteria for designation as a regional center,<sup>32</sup> there is wide variation in staffing and resources. The Bay Area Regional Center, for example, operates contiguous to and in constant cooperation with, but independently of, the Emergency Department (Mission Emergency Hospital) of San Francisco General Hospital Medical Center; it is staffed exclusively by clinical pharmacists, and is under the direction of pharmacists and physicians holding faculty appointments in pharmacy and clinical pharmacology at the University of California at San Francisco.

Another northern California center utilizes registered nurses as poison information specialists and is under the medical direction of the physician-in-chief of the emergency department contract group.

## II. THE LEGAL CONSEQUENCES

Because the law is currently silent on the point in California and many other states, a facility can seemingly designate itself a "poison control center" without restraint, and may

<sup>30.</sup> Thompson, Trammel, Robertson & Reigart, Evaluation of Regional & Nonregional Poison Centers, 308 NEW ENG. J. OF MED. 194 (1983). The authors do not precisely define the terms "regional" and "nonregional," but it is a reasonable assumption that the former term refers to centers certified by the AAPCC.

<sup>31.</sup> Emergency Medical Services, supra note 3, at 311.

<sup>32.</sup> Am. Ass'n of Poison Control Centers, supra note 26 passim.

staff and operate as it wishes.<sup>33</sup> If a state director of health or similar officer is charged by statute with the responsibility of developing a statewide poison information system, it is debatable whether such charge carries with it adequate power to regulate "centers" which arise outside the designated network or system.<sup>34</sup>

Apart from these scant legal constraints, the only standards extant are those of the AAPCC,<sup>35</sup> and membership and adherence to such standards is entirely voluntary.<sup>36</sup> In the authors' view, the unrestricted ability of any facility to designate and market itself as a "poison control center" poses a significant threat of consumer deception if it lacks the appropriate resources. Clearly, this could have markedly harmful effects if a caller's problem were inadequately diagnosed or incorrectly managed.

Given the present economic forces in health care delivery<sup>37</sup> and the marked increase in "emergicenters" and other proprietary clinics which are not subject to licensure or accreditation,<sup>38</sup> it is a reasonable concern that some of them

35. AM. Ass'N OF POISON CONTROL CENTERS, supra note 26. The criteria include a regional population base of no fewer than one million people (IIB); twenty-four hour response capability 365 days per year (IIIA); ready telephone accessibility from all areas of the region (IIIB); the maintenance of comprehensive poison information resources (IIIC); written management protocols (IIID); qualified director and staff (IIIE); categorization of capabilities in specified areas of treatment centers within the region (IV); a regional data collection system (V); and poisoned patient management education programs for health care professionals (VI).

36. See AM. Ass'N OF POISON CONTROL CENTERS, supra note 26 passim. Michigan has adopted the Association's criteria as the legal guidelines for poison center operation. MICH. COMP. LAWS ANN. §§ 333.1013 (1980).

37. See generally Blumstein, Rationing Medical Resources: A Constitutional, Legal & Policy Analysis, 59 TEX. L. REV. 1345 (1981); Tarlov, The Increasing Supply of Physicians, The Changing Structure of the Health-Services System, and The Future Practice of Medicine, 308 NEW ENG. J. OF MED. 1235 (1983).

38. Freestanding clinics or ambulatory care centers operate unconnected to a hospital or other licensed facility and are not subject to accreditation, licensure, or other regulation. They have engendered much debate, and predictably will continue to do so. See, e.g., Krome, Freestanding Emergency Physicians, 12 ANNALS OF EMER-GENCY MED. 188 (1983) (editorial).

It is estimated that in 1979 there were fewer than one hundred such freestanding

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<sup>33.</sup> Arkansas, Connecticut, Michigan, Minnesota and New Hampshire are among the states that have established statewide poison control networks. Ark. Stat. ANN. §§ 82-3501-3509 (1976); CONN. GEN. STAT. ANN. § 19-23 (West 1977); MICH. COMP. LAWS ANN. §§ 333.1011-333.1013 (1980); MINN. STAT. ANN. § 145.93 (1983); N.H. Rev. Stat. Ann. § 126-A:61 (1981).

<sup>34.</sup> See, e.g., Mich. Comp. Laws Ann. § 333.1011 (1980); N.H. Rev. Stat. Ann. § 126-A:61 (1981).

may choose to self-designate as "centers" when they have no appropriate resources to do so because it will make them appear more comprehensive and attractive to the consumer.

Even certified regional centers have so divergent a range of staffing and operational patterns as to make comprehensive examination and analysis most difficult. This problem is compounded by the centers which are not certified and follow no standard criteria. Quite apart from these difficulties, however, certain facets of poison control center operation pose significant legal questions and potential legal liability, irrespective of the type of center.

Any center could be held liable on well-accepted principles of tort law for a breach by an employee of the duty of care, whether by malfeasance or nonfeasance, in handling a poisoning case.<sup>39</sup> The duty stems from the poison control center's representation of its availability and resources to the public, and arises as soon as the center undertakes to advise or treat in a given case.<sup>40</sup> This is true even though the service is given free of charge.<sup>41</sup> Moreover, the duty would not appear to be attenuated by a lack of direct contact with the patient, as where the center advises a physician or hospital employee about the patient's treatment.<sup>42</sup>

A thorough review of tort theories is beyond the scope of this article, but it may briefly be noted that responsibility for the negligence of an employee could readily be imputed to the poison control center under doctrines of vicarious liability.<sup>43</sup> The center could be held liable whether it functioned as an

39. See generally A. Holder, Medical Malpractice Law (1975); W. Prosser, Handbook of the Law of Torts 160-65 (4th ed. 1971).

40. W. PROSSER, supra note 39, at 356. A New York court recently found that a city and county jointly assumed a special duty in promulgating a "911" telephone number as one to be used for emergency assistance. DeLong v. County of Erie, 58 N.Y. 2d 860, 460 N.Y.S.2d 526 (1983).

41. RESTATEMENT (SECOND) OF TORTS § 323 (1965).

43. W. PROSSER, supra note 39, at 458-61.

facilities in the United States, and that there will be more than one thousand by the end of 1983. See Reem, The National Association of Freestanding Emergency Centers, 12 EMERGENCY MED. SERVICES, 22, 26 (1983). These clinics are sometimes referred to by their detractors as "Docs-In-The-Box."

<sup>42.</sup> See, e.g., Capuano v. Jacobs, 33 A.D.2d 743, 305 N.Y.S.2d 837 (1969), recognizing the duty of a radiologist who had no direct contact with the patient. Cf. O'Neill v. Montefiore Hospital, 11 A.D.2d 132, 202 N.Y.S.2d 436 (1960), in which the court found that the initial telephone call from patient to physician was sufficient to trigger the duty of care.

unincorporated association,<sup>44</sup> a corporation in its own right,<sup>45</sup> a partnership,<sup>46</sup> or as an independent contractor, in whatever form, with a hospital.<sup>47</sup> The hospital may also be held liable under the growing doctrine of corporate negligence for acts of its independent contractors.<sup>48</sup>

No reported cases imposing such liability upon poison control centers have been found, but the results of the comparative evaluation of regional and nonregional centers referred to above<sup>49</sup> are instructive. A standard modality in the management of many poisonings is the induction of vomiting by use of Syrup of Ipecac, a non-prescription or over-thecounter emetic widely available to the public in grocery stores and pharmacies.<sup>50</sup> It is commonly advised that parents have a bottle available in the home,<sup>51</sup> and advice to use Syrup of Ipecac is probably the most frequently used component of the poison specialist's armamentarium. In a recent study,

[t]he nonregional poison centers recommended ineffective and potentially dangerous methods and agents to induce emesis. In thirty percent of the calls to these centers mechanical stimulation was recommended to induce emesis. This method is ineffective at best and probably should not be recommended. Saltwater was recommended as an emetic in two calls. Since several deaths have been associated with the use of saltwater to induce emesis, it should not be recommended by any poison center. Raw eggs or mustard water were recommended by some of the nonregional centers. The regional centers did not recommend any ineffective agents or methods to induce emesis. One regional center did suggest the use of soapy water [on one call], but recent data support this agent as a po-

48. Id.

<sup>44.</sup> See, e.g., CAL. CORP. CODE § 24001(a) (West 1977).

<sup>45.</sup> See, e.g., Juchert v. California Water Service Co., 16 Cal. 2d 500, 106 P.2d 886 (1940).

<sup>46.</sup> See, e.g., CAL. CORP. CODE § 15015(a) (West 1977), enacting in pertinent part the Uniform Partnership Act.

<sup>47.</sup> See Elam v. College Park Hospital, 132 Cal. App. 3d 332, 183 Cal. Rptr. 156 (1982).

<sup>49.</sup> Thompson, Trammel, Robertson & Reigart, supra note 30, at 194.

<sup>50.</sup> H. STEPHENSON, JR., IMMEDIATE CARE OF THE ACUTELY ILL OR INJURED 173 (2d. ed. 1978). Syrup of Ipecac is contra-indicated in such cases as the ingestion of caustics or corrosives, where the induction of vomiting can greatly increase the risk of harm to the patient. *Id.*.

<sup>51.</sup> Central Coast Counties Regional Poison Control Center brochure, Poison Control Center, 4 (undated); H. STEPHENSON, JR., supra note 50, at 172.

tentially safe, reliable emetic.52

A "leap to liability" could easily be made if a parent administered saltwater to a child at the behest and advice of a poison control center, and the child died. That possibility and the results of the study underscore strong concerns about the lack of effective data-gathering and monitoring and quality controls, particularly in noncertified centers.

Apart from the general law applicable to any provider of health care services for breach of duty in failing to meet the standard of care, to which liability properly attaches,<sup>53</sup> the very operation of poison control centers poses specific, if somewhat condign, concerns relating to the way they function and the present stance of the law.

As discussed above, poison control centers provide information and assistance both to consumers and to health care providers. The poison information specialists who answer calls and provide the information and assistance may, as we have seen, be physicians, pharmacists or nurses, or they may have sound toxicological or chemical backgrounds and training but hold no professional license, or they may even be lay clerical or volunteer personnel.<sup>54</sup> Though comprehensive data are not available, it is estimated that most of the poison information specialists in certified centers are registered pharmacists or registered nurses who have additional special training in clinical pharmacology and toxicology and in poison information science.

Differences in the possible liability of a poison control center's personnel may arise, depending upon the status of the

<sup>52.</sup> Thompson, Trammel, Robertson & Reigart, supra note 30, at 193.

<sup>53.</sup> RESTATEMENT (SECOND) OF TORTS § 282 (1965); W. PROSSER, supra note 39, at 165.

<sup>54.</sup> To the authors' knowledge, very few physicians act in this capacity, though they widely serve as consultants and may give poison management information in a particular case, because it is hardly effective to have a center staffed with physicians on a 24-hour basis. Moreover, most physicians lack the requisite training in clinical toxicology. A review by the authors of the curricular offerings of twenty-four medical schools, representing both public and private institutions from all areas of the country, revealed that all offered courses in pharmacology and most required it. Eleven schools described the pharmacology course as including lectures in toxicology. Seven offered elective courses in toxicology, though in four the extent of the clinical as opposed to the theoretical application was unclear. While the opportunity for individual directed study and research for limited numbers of students in areas of special interests appeared to exist at most of the surveyed schools, it is noteworthy that seventeen of them offered no course work at all in toxicology.

person seeking help. Therein lies the rub<sup>55</sup> and the legal anomaly. If the caller seeking assistance were a physician or other health care professional calling at the behest of a physician attending a poisoning patient, the poison information specialist would simply be acting as an informational resource, a conduit of knowledge, and would not be directly treating the patient. Implementation of the information and advice would depend entirely upon the decision of the attending physician; thus, no question should arise as to the poison information specialist's acting in possible contravention of medical practice laws, and there would be no exposure to legal liability unless the information and assistance were incorrectly given.<sup>56</sup>

If, on the other hand, the person seeking assistance is a patient or a lay person acting on the patient's behalf, the picture changes. Poison control center personnel must elicit a careful history of the incident and the patient; perform an essential triage function in determining the urgency of the case, and whether and how swiftly the caller should seek medical intervention; give advice about emetics or other antidotes; and make follow-up calls to monitor the patient's progress and condition.<sup>67</sup>

These functions are central to the concept of a poison control center, but their performance may arguably transgress statutes governing the scope of professional practice.<sup>58</sup> Thus, the poison information specialist may be at legal risk for doing precisely and correctly what she or he is there to do, no matter how much the advice meets or exceeds the standard of care.

Licensed pharmacists, for example, are empowered by statute to dispense medications ordered by a licensed prescriber (usually a physician, dentist or podiatrist).<sup>59</sup> Because

<sup>55.</sup> Cf. W. Shakespeare, Hamlet, act iii, scene 1, line 65, in The Complete Works of Shakespeare (Annot.) 920 (H. Craig, ed. 1951).

<sup>56.</sup> See, e.g., Capuano v. Jacobs, 33 A.D.2d 743, 305 N.Y.S.2d 837 (1969); cf. O'Neill v. Montefiore Hospital, 11 A.D.2d 132, 202 N.Y.S.2d 436 (1960).

<sup>57.</sup> Veltri, supra note 29, at 1479; Emergency Medical Services, supra note 3, at 315.

<sup>58.</sup> See infra text accompanying note 72.

<sup>59.</sup> See, e.g., ARK. STAT. ANN. § 72-1044 (1976); CAL. BUS. & PROF. CODE § 4046 (West Supp. 1983); CONN. GEN. STAT. ANN. § 20-184a (West 1977); compare MICH. COMP. LAWS ANN. § 333.17707(5)(e) (1980) which defines giving advice to patients and prescribers about contents, therapeutic action, utilization and possible adverse reactions or interactions of drugs as a component of the practice of pharmacy. See also CAL. ADMIN. CODE, tit. 16, § 1744 (1983), which mandates a pharmacist to give advice

they fail to specify that a pharmacist may instruct or advise, many state licensing statutes are unclear as to the extent to which a licensed pharmacist may provide advice and counsel about nonprescription drugs, such as Syrup of Ipecac.<sup>60</sup> Clearly such advice and counsel are commonplace, probably a daily occurrence in every pharmacy in the land, and it can be argued that by not prohibiting it, the legislature intended to allow the practice.

That argument does not lay to rest the core question: Does a poison information specialist who is a licensed pharmacist violate the law by advising the use of an over-thecounter medication without obtaining a specific order for that medication from a physician? In the case of most poison control centers, physicians cannot be continually present, and those that may be in reasonably close proximity such as attending physicians in an adjacent hospital emergency department are less trained in clinical toxicology and poison management than the poison information specialist.<sup>61</sup> To require physician order in every case would defeat the whole purpose of a poison control center.

Registered nurses may be in worse legal position because their scope-of-practice statutes are more restrictive.<sup>62</sup> For example, the California Nursing Practice Act provides that nursing practice consists of

those functions, including basic health care, which help people cope with difficulties in daily living which are associated with their actual or potential health or illness problems or the treatment thereof which require a substantial amount of scientific knowledge or technical skill  $\dots$ .<sup>63</sup>

It further provides that nursing treatment shall be carried out pursuant to standardized procedures, which the Act defines as policies and protocols collaboratively developed by nursing,

about listed drugs in combination with alcohol, and about their possible impairment of a person's ability to operate a motor vehicle.

<sup>60.</sup> See, e.g., Ark. Stat. Ann. § 72-1044 (1976); Cal. Bus. & Prof. Code § 4046 (West Supp. 1983); Conn. Gen. Stat. Ann. § 20-184a (West 1977).

<sup>61.</sup> See supra note 54.

<sup>62.</sup> See, e.g., ARK. STAT. ANN. § 72-746 (1976); CAL. BUS. & PROF. CODE § 2725 (West Supp. 1983); CONN. GEN. STAT. ANN. § 20-87 (West 1977); WASH. REV. CODE ANN. § 18.88.280 (Supp. 1983). Compare IDAHO CODE § 54-1402(1) (1979), which adopts a broader and more realistic definition of nursing practice.

<sup>63.</sup> CAL. BUS. & PROF. CODE § 2725 (West Supp. 1983).

medical and administrative personnel.64

In 1981 the Attorney General of California issued an Opinion—whose result the authors submit is singularly ill-advised—to the effect that a registered nurse may not "prescribe, furnish or administer drugs or medications under a standardized procedure."<sup>65</sup> The two legislative exceptions are mobile intensive care nurses<sup>66</sup> and experimental health manpower project nurses.<sup>67</sup>

In poison control centers of the authors' acquaintance, a standard reference tool is the Poisindex,<sup>68</sup> a microfiche system. Updated quarterly, it provides information about components and contents for an immense array of chemicals and compounds, even identifying them by common brand names. It also provides recommended management protocols for each in case of exposure to the particular substances. In essence it provides "standardized procedures" which are put into effect and followed as standing orders from the medical director of the poison control center. According to the Attorney General's Opinion, a registered nurse working as a poison information specialist could not implement any management based on standing orders or standardized procedures in a poisoning case without a direct physician order.<sup>69</sup> She or he could not, for example, advise a parent to administer Syrup of Ipecac. or anything else except manual or mechanical means of inducing emesis, which as indicated above are dangerous and discountenanced procedure.<sup>70</sup>

What of the person who may not be professionally licensed but has adequate competency and knowledge to function as a poison control specialist?<sup>71</sup> Having no license, such person would not transgress his or her own scope-of-practice laws, but would likely be in violation of the laws defining medical practice, which speak in such traditional terms as "diagnoses, treats, operates for or prescribes for any ailment,

<sup>64.</sup> Id.

<sup>65. 64</sup> Op. Cal. Att'y Gen. 240 (1981).

<sup>66.</sup> Cal. Health & Safety Code §§ 1797.171, 1797.172 (West Supp. 1983).

<sup>67.</sup> CAL. BUS. & PROF. CODE § 2725.1 (West Supp. 1983). Pharmacists may also prescribe if employed in an experimental health manpower project. CAL. BUS. & PROF. CODE § 4037.1 (West Supp. 1983).

<sup>68.</sup> Published by Micromedex, Inc.

<sup>69. 64</sup> Op. Cal. Att'y Gen. 240, 251 (1981).

<sup>70.</sup> See supra text accompanying note 52.

<sup>71.</sup> The possibility is acknowledged, though the authors believe it is unlikely.

blemish, disfigurement, disorder, injury or other physical or mental condition . . . .<sup>772</sup>

In terms of liability, scope-of-practice problems run in two distinct directions. First, in a case in which negligence is alleged, the giving of advice in violation of a scope-of-practice statute may be found to amount to negligence per se, a doctrine of judicial invention creating a presumption of negligence.<sup>78</sup> The underlying theory is that because the defendant poison control center specialist "violated a statute not providing for civil liability but adopted to protect a class of individuals against a certain type of occurrence,"74 a presumption of negligence should be invoked against the person so acting. The doctrine has been used in a variety of settings to establish civil liability and requires four elements.<sup>75</sup> First, it must be proven that a statute (such as a pharmacy, nursing or medical scope-of-practice act) was violated. Second, the violation must be the proximate cause of the injury to the patient. Third, the type of harm suffered must be of the type that the statute was intended to prevent, such as harm from the unauthorized practice of medicine. Finally, the plaintiff must be a member of the class of persons intended to be protected by the statute, in this case the general public.<sup>76</sup>

The second consideration in terms of liability is allied, but is raised in all cases, including all those in which there is no untoward result and no allegation of negligence. It is that by giving advice which may later be found to have transgressed scope-of-practice laws, the poison information specialist may incur either criminal penalty or administrative sanc-

74. Holdych, The Presumption of Negligence Rule in California: The Common Law & Evidence Code Section 669, 11 PAC. L.J. 907, 910 (1980).

75. CAL. EVID. CODE § 669 (West Supp. 1983). The presumption has resulted, for example, in the imposition of civil liability for police officers who violate departmental regulations, Peterson v. City of Long Beach, 24 Cal. 3d 238, 594 P.2d 477, 155 Cal. Rptr. 360 (1979); to non-commercial furnishers of alcohol to intoxicated persons, Coulter v. Superior Court, 21 Cal. 3d 144, 577 P.2d 669, 145 Cal. Rptr. 534 (1978); and to health care professionals who fail to report instances of child abuse, Landeros v. Flood, 17 Cal. 3d 399, 551 P.2d 389, 131 Cal. Rptr. 69 (1976). For a discussion of the doctrine's particular application in the health care field, see D. TENNENHOUSE, AN INTRODUCTION TO HEALTH CARE LITIGATION IN CALIFORNIA 231-32 (1973).

76. CAL. EVID. CODE § 669 (West Supp. 1983).

<sup>72.</sup> CAL. BUS. & PROF. CODE § 2052 (West Supp. 1983).

<sup>73.</sup> CAL. EVID. CODE § 669 (West Supp. 1983); C. MORRIS, TORTS 61 (2d ed. 1980); W. PROSSER, *supra* note 39, at 200-02. A classic case is Bott v. Pratt, 33 Minn. 323, 23 N.W. 237 (1885), wherein defendant violated a statute requiring horses to be hitched.

tion against her or his own license, or both.77

### III. THE SOCIAL NECESSITY

Many medical practice statutes are archaically couched, their language harkening to a time long past when nursing and pharmacy had far more restricted functions than is true today, and poison information science had not been invented.<sup>78</sup> Toxic compounds, which today abound were then non-existent.<sup>79</sup>

An efficacious poison information network is absolutely critical to the public's health, and that necessity will grow as compounds, exposures, and the deleterious effects of poison multiply. A proper system is not only effective in saving lives. it is cost-efficient in preventing unnecessary care. In a random study of 250 calls to the Bay Area Regional Center involving the ingestion of both poisonous and non-poisonous substances, 67% of the callers indicated that they would have gone to an emergency facility for assistance if they had not been able to call the Center for advice.<sup>80</sup> In every case in that part of the sample population, further medical intervention was not required for diagnosis or continued care, and assistance by way of advice about appropriate home management and follow-up by Center staff was all that was necessary.<sup>81</sup> Thus, in this study group alone, the cost of roughly 175 hospital emergency department visits was saved.<sup>82</sup> In the first fourteen months of the Bay Area Regional Center's operation, it is estimated that nearly 10,000 hospital visits were avoided by Center intervention and management, at a cost savings of more than \$600,000.83

<sup>77.</sup> Cf. Winokur & Weiss, Some Thoughts on Minimizing Legal Liability of Poison Control Centers, 12 CLINICAL TOXICOLOGY 319, 325 (1978).

<sup>78.</sup> See, e.g., Ark. Stat. Ann. § 72-604 (1976); Cal. Bus. & Prof. Code § 2052 (West Supp. 1983); Mich. Comp. Laws Ann. § 333.17001 (West 1980).

<sup>79.</sup> The indices of the first edition of a reference text on the clinical management of poisonings, published in 1952, list approximately 1142 compounds, drugs or other toxic substances. W. VON OETTINGEN, POISONING—A GUIDE TO CLINICAL DIAG-NOSIS AND TREATMENT 509-24 (1952).

The Poisindex current through November, 1983, contains approximately 401,024 such entries.

<sup>80.</sup> Summary, supra note 2, at 2.

<sup>81.</sup> Id.

<sup>82.</sup> Id.

<sup>83.</sup> Id.

The other and more important side of the cost-savings coin, of course, is the benefit to life and health resulting from the early recognition and appropriate treatment of serious toxic encounters. Also, significant cost-savings are involved because lives have been saved and hospital stays shortened. Consider again the case of the Scarlet Runner Bean.<sup>84</sup>

## IV. CONCLUSION

To have an effective poison control system, the law must recognize and respond to the social need with appropriate standards, not ignore it. The regulatory scheme should advance and enhance the function of effective regional centers, not inhibit them or inadvertently expose their personnel to liability or legal sanction because the law failed to address the needs which proper centers are meeting.

Several specific points should receive prompt legislative address. First, a system of regional poison control centers should be established, perhaps based upon health service areas designated pursuant to the National Health Planning & Resources Development Act of 1974.<sup>85</sup> Second, criteria should be established for the function and operation of poison centers, based upon the standards of the AAPCC<sup>86</sup> or a similar professional body. Third, though the complexities of funding public services are far beyond the scope of this article, adequate funding mechanisms for centers meeting the legislative criteria should be assured.<sup>87</sup> And finally, there should be a legislative exception to the anomalies of the scope-of-practice acts for center personnel who meet the legislative standards, specifically authorizing the functions of poison information specialists.<sup>89</sup>

As a part of the latter, or concomitant with it, a "Good Samaritan" immunity from civil liability for ordinary negligence should seriously be considered for poison control center

<sup>84.</sup> See supra text accompanying note 9.

<sup>85. 42</sup> U.S.C. § 300k-300n (1976 & Supp. V 1981). See generally S. MICIK, supra note 2.

<sup>86.</sup> AM. Ass'N OF POISON CONTROL CENTERS, supra note 26 passim.

<sup>87.</sup> Previous legislative attempts to establish such a system in California and provide state funding have not availed. Cal. A.B. 2781, 1979-80 Cal. Reg. Sess.; Cal. S.B. 1701, 1979-80 Cal. Reg. Sess.; A.B. 3957, 1977-78 Cal. Reg. Sess., all failed passage.

<sup>88.</sup> See supra text accompanying notes 55-60.

personnel. It is the law's policy to promote the giving of proper emergency care,<sup>99</sup> and since 1959, every state and the District of Columbia have enacted some form of "Good Samaritan" protection for those who provide emergency treatment.<sup>90</sup> California was the first state to do so,<sup>91</sup> and now has sixteen separate immunity statutes covering a diversity of persons and circumstances,<sup>92</sup> including those which extend immunity to base station hospital physicians and mobile intensive care nurses giving orders to advanced life support personnel in the field,<sup>93</sup> to police officers, fire fighters and emergency medical technicians of all levels rendering emergency care,<sup>94</sup> to members of a licensed health care facility's "rescue team,"<sup>96</sup> and to any person who has been trained in cardiopulmonary resuscitation according to the standards of

90. Mapel & Weigel, Good Samaritan Laws—Who Needs Them? The Current State of Good Samaritan Protection in the United States, 21 S. TEX. L.J. 327 (1981), reprinted in 4 Specialty Law Digest: Health Care 5 (1983).

91. Cal. A.B. 2873, Stats. 1959, Ch. 1507; Mapel & Weigel, *supra* note 90, at 329, 4 Specialty Law Digest: Health Care 5, 7.

92. CAL. BUS. & PROF. CODE § 2395 (West Supp. 1983) (physicians and podiatrists generally); CAL. BUS. & PROF. CODE § 2398 (West Supp. 1983) (physicians and podiatrists while attending athletic events at high schools or community colleges); CAL. BUS. & PROF. CODE § 1627.5 (West 1974) (dentists); CAL. BUS. & PROF. CODE § 2727.5 (West 1974) (registered nurses); CAL. BUS. & PROF. CODE § 2861.5 (West Supp. 1983) (licensed vocational nurses); CAL. CIV. CODE § 1714.2 (West Supp. 1983) (any person trained in cardiopulmonary resuscitation-CPR-and those instructing such persons); CAL. HARB. & NAV. CODE § 656 (West 1978) (any person rendering assistance at a boating accident); CAL. HEALTH & SAFETY CODE § 1317 (West 1979) (rescue team members in licensed health facility); CAL. HEALTH & SAFETY CODE §§ 1766, 1799.100 (West Supp. 1983) (agencies sponsoring or supporting emergency medical training); CAL. HEALTH & SAFETY CODE § 1799.102 (West Supp. 1983) (any person rendering emergency aid); CAL. HEALTH & SAFETY CODE § 1799.104 (West Supp. 1983) (physician or nurse directing paramedics or EMT-II's; paramedics or EMT-II's following such direction); CAL. HEALTH & SAFETY CODE § 1799.106 (West Supp. 1983) (fire fighters, law enforcement officers, emergency medical technicians of all levels); CAL. HEALTH & SAFETY CODE § 1799.108 (West Supp. 1983) (all prehospital emergency care personnel holding certificates); CAL. HEALTH & SAFETY CODE § 28689 (West Supp. 1983) (any person attempting to remove food stuck in throat of another in restaurant); CAL. Gov'T. CODE § 50086 (West 1983) (any person summoned by authorities to volunteer in search and rescue operation); CAL. VEH. CODE § 165.5 (West 1971) (rescues operating in conjunction with authorized emergency vehicle).

93. Cal. Health & Safety Code § 1799.104(a) (West Supp. 1983).

94. CAL. HEALTH & SAFETY CODE § 1799.106 (West Supp. 1983).

95. CAL. HEALTH & SAFETY CODE § 1317 (West Supp. 1983).

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<sup>89.</sup> See, e.g., CAL. HEALTH & SAFETY CODE § 1750 (West 1979), which provides in pertinent part: "It is the intent of the Legislature in enacting this chapter [relating to emergency medical care services] to promote the development, accessibility and provision of emergency medical services to the people of the State of California."

the American Heart Association or the American Red Cross, and attempts to use those skills in an emergency.<sup>96</sup>

The poison control center is a vital component of an emergency medical care system,<sup>97</sup> and its personnel merit as much encouragement to emergency function as a hospital's cardiopulmonary resuscitation team<sup>98</sup> or a witness to a boating accident.<sup>99</sup> Arkansas has extended immunity from civil liability to poison control center personnel acting in good faith,<sup>100</sup> and other states should follow its lead.

In March, 1983 the AAPCC gave its first examination for certifying poison information specialists.<sup>101</sup> Two hundred eighty-one persons took the examination, including 119 from AAPCC certified regional centers. Overall, 62% of the candidates passed; of the personnel from certified regional centers, 78% were successful.<sup>102</sup>

Since means are now at hand to assess the proficiency of poison control personnel, it seems an appropriate time for legal recognition of their vital function, and for the bringing of some order to what is, lamentably, a non-system. The poison control movement has for some time been a shambling creature—as exemplified by the existence of 103 centers for ten million people in Illinois<sup>103</sup>—and it needs to be fenced in,<sup>104</sup> with support for properly-distributed regional centers meeting strict standards and the inhibition of sub-standard operations

101. Letter from Toby Litovitz, M.D., Chairperson, Personnel Proficiency Committee, American Association of Poison Control Centers to poison center directors (June 15, 1983).

102. Id.

103. S. MICIK, supra note 2, at 10-11.

104. The original phrase was Professor John P. Dawson's employed in an utterly different context (discussing the development of restitutionary doctrines), though it is equally apt here: "Without much conscious development or plan, we have created this shambling creature. It is time to fence it in." J. DAWSON, UNJUST ENRICH-MENT 33 (1951).

<sup>96.</sup> CAL. CIV. CODE § 1714.2 (West Supp. 1983).

<sup>97.</sup> Emergency Medical Services, supra note 3.

<sup>98.</sup> Cal. Health & Safety Code § 1317 (West 1979).

<sup>99.</sup> CAL. HARB. & NAV. CODE § 656 (West 1978).

<sup>100.</sup> ARK. STAT. ANN. § 82-3508 (1976), which provides that:

None of the personnel within any of the components of this PC-DI-TL [Poison Control-Drug Information-Toxicological Laboratory] system shall incur personal liability or be placed in any legal jeopardy for any laboratory services provided, analysis executed and reported, information proffered in good faith, professional judgments and responses provided for the system, or any good faith, professional effort to effectuate the purposes of this Act.

which fail to meet an acceptable standard of care.

In 1979 the following observations were made by Sylvia Micik, M.D., then Chief of the Division of Emergency Medical Services of the County of San Diego, California, and Project Director of the U.S. Department of Health, Education & Welfare (as it was then, now the Department of Health & Human Services) Poison Center Medical Directors' Training Project:

Poisoning is a medical condition that demands a systems approach because of the nature of the poisoning incident itself. It has a sudden onset; it is potentially life threatening; it occurs in unpredictable locations outside of hospital settings: there are time constraints for treatment to prevent death; and there is a necessity for successive treatment and triage in multiple locations by multiple providers [sic]. When these characteristics exist for any medical condition, a system is necessary to guarantee the patient adequate care. The various personnel and resources must be coordinated into a planned response, in which the patient's problem is identified and classified and he is selectively treated by telephone or routed to resources that meet his particular needs. Operational, treatment and triage protocols under which the patient care providers operate are crucial to patient survival.

The focal point of the poison system's response is the regional poison center. It serves the region's public and professionals by providing telephone consultation and treatment or appropriate referral to a treatment center. The regional center provides a source of cumulative expertise within the region. The experience and data of all the physicians who manage poisonings are collected at the regional center. If the center coordinates effectively with other regional centers, and if there are adequate system linkages, the center then provides to its region the accumulated expertise of the nation.<sup>105</sup>

Nearly five years later, there is virtually no evidence of progress while the need has increased; it seems to be a rule of our modern age that toxins and exposures to them both increase rampantly. It is time that we gave their management better heed and greater systematic legitimation.