

REVIEW ARTICLE

Edward W. Campion, M.D., *Editor*

Elder Abuse

Mark S. Lachs, M.D., M.P.H., and Karl A. Pillemer, Ph.D.

ALTHOUGH IT HAS PROBABLY EXISTED SINCE ANTIQUITY, ELDER ABUSE was first described in the medical literature in the 1970s.¹ Many initial attempts to define the clinical spectrum of the phenomenon and to formulate effective intervention strategies were limited by their anecdotal nature or were epidemiologically flawed. The past decade, however, has seen improvements in the quality of research on elder abuse that should be of interest to clinicians who care for older adults and their families. Financial exploitation of older adults, which was explored only minimally in the initial studies, has recently been identified as a virtual epidemic and as a problem that may be detected or suspected by an alert physician.

In the field of long-term care, studies have uncovered high rates of interpersonal violence and aggression toward older adults; in particular, abuse of older residents by other residents in long-term care facilities is now recognized as a problem that is more common than physical abuse by staff.^{2,3} The use of interdisciplinary or interprofessional teams, also referred to as multidisciplinary teams in the context of elder abuse, has emerged as one of the intervention strategies to address the complex and multidimensional needs and problems of victims of elder abuse, and such teams are an important resource for physicians.^{4,5} These new developments suggest an expanded role for physicians in assessing and treating victims of elder abuse and in referring them for further care.

In this review, we summarize research and clinical evidence on the extent, assessment, and management of elder abuse, derived from our analysis of high-quality studies and recent systematic studies and reviews of the literature on elder abuse.⁶⁻¹⁰

DEFINITIONS AND ESTIMATES OF PREVALENCE

Debates about how to define elder abuse and which types of behavior to include in the definition greatly inhibited progress during the early period of research on this topic. Initial formulations were overly broad and included types of behavior that are not typically part of definitions of domestic abuse, such as crime by strangers, age discrimination, and failure to care for oneself (referred to as “self-neglect”). Over the past decade, however, consensus has arisen about the inclusion of five major types of elder abuse¹¹⁻¹³: physical abuse, or acts carried out with the intention to cause physical pain or injury; psychological or verbal abuse, defined as acts carried out with the aim of causing emotional pain or injury; sexual abuse, defined as nonconsensual sexual contact of any kind; financial exploitation, involving the misappropriation of an older person’s money or property; and neglect, or the failure of a designated caregiver to meet the needs of a dependent older person (Table 1).

When these types of abuse have been considered together, epidemiologic surveys have shown generally similar prevalences of elder abuse over a period of 12 months, as indicated by three high-quality epidemiologic studies of community-

From the Division of Geriatrics and Palliative Medicine, Weill Cornell Medical College, Cornell University, New York (M.S.L.), and the Department of Human Development, Cornell University, Ithaca (K.A.P.) — both in New York. Address reprint requests to Dr. Lachs at the Division of Geriatrics and Palliative Medicine, Weill Cornell Medical College, Cornell University, 1300 York Ave., New York, NY 10065.

N Engl J Med 2015;373:1947-56.

DOI: 10.1056/NEJMr1404688

Copyright © 2015 Massachusetts Medical Society.

Table 1. Forms of Elder Abuse and Clinical Procedures for Assessment by the Physician.*

Type of Abuse	Manifestations	Assessment and Notable Findings
Physical abuse	<p>Abrasions Lacerations Bruises Fractures Use of restraints Burns Pain Depression Delirium with or without worsening of dementia or dementia-related behavioral problems</p>	<p>Ask directly how injuries were sustained; note findings that are discordant with the mechanism of injury reported.</p> <p>Color of bruises does not reliably indicate their age; bruising can occur spontaneously in older adults in the absence of documented or recollected trauma.¹⁴ Older adults may bruise spontaneously or without apparent awareness of injury.</p> <p>Injuries to the head, neck, and upper arms occur in victims of physical elder abuse, but they must be distinguished from accidental injuries caused by falls and other trauma.</p> <p>Jaw and zygomatic fractures are more likely to be sustained in a punch to the face than in a fall (falls typically result in fractures to orbital and nasal bones).</p> <p>Long-bone fractures can occur spontaneously in the absence of physical abuse in patients who are confined to bed.</p> <p>Ankles and wrists should be examined for abrasions suggestive of the use of restraints.</p> <p>Multiple injuries in various stages of healing should raise the suspicion of abuse (e.g., lacerations healing by secondary intention [i.e., without sutures] and old, unset fractures detected on radiographs).</p> <p>The mouth should be examined for dental fractures and avulsion of teeth.</p> <p>A formal assessment for pain should be conducted (this may be difficult in patients with cognitive impairment).</p> <p>Screen formally for depression, ideally with the use of an instrument such as the Geriatric Depression Scale.</p> <p>The patient should be assessed for delirium (or worsening of dementia or dementia-related behavioral problems), which can result from pain or other medical problems.</p> <p>The interview should be conducted alone with the patient; it may reveal discordant histories or findings inconsistent with the history provided by the caregiver.</p>
Verbal or psychological abuse	<p>Direct observation of verbal abuse Subtle signs of intimidation, such as deferring questions to a caregiver or potential abuser Evidence of isolation of victim from both previously trusted friends and family members Depression, anxiety, or both in the patient</p>	<p>Ask specifically about verbal or psychological abuse with questions such as “Does your son or daughter ever yell or curse at you?” “Have you been threatened with being sent to a nursing home?” “Are you ever prevented from seeing friends and family members whom you wish to see?”</p> <p>Assess the size and quality of the patient’s social network (beyond the suspected abuser) with questions such as “How many people do you see each day?” “How many do you speak to on the telephone?” “Is there anyone to assist you in the event of accident or emergency?” “Who would that be?”</p> <p>Conduct standardized assessments of depression, anxiety, and cognition, directly or through referral.</p> <p>Other types of abuse are often concurrent with verbal abuse.</p> <p>Office staff (clinical and front desk) should be encouraged to report verbally abusive behavior to the physician if they observe it.</p>
Sexual abuse	<p>Bruising, abrasions, lacerations in the anogenital area or abdomen Newly acquired sexually transmitted diseases, especially in nursing home residents (and especially in cluster outbreaks) Urinary tract infection</p>	<p>Inquire directly about sexual assault or coercion in any sexual activity.</p> <p>Conduct a pelvic examination with collection of appropriate specimens or refer to emergency department for comprehensive assessment for sexual assault and collection of specimens. Ideally, forensic evidence should be collected by experienced professionals, such as nurses who have undergone Sexual Assault Nurse Examiners (SANE) training.</p> <p>A common form of geriatric sexual assault involves a hypersexual resident with dementia in a long-term care facility assaulting other residents who may or may not also have cognitive impairment.¹⁵ This situation raises fundamental issues about the capacity of older persons with dementia to consent to sexual activity.</p> <p>For outpatients with dementia, direct queries to caregivers about hypersexual behavior as part of a larger history regarding dementia-related behaviors.</p> <p>Signs of sexual abuse are similar to manifestations of sexual violence in younger adults.</p>

Table 1. (Continued.)

Type of Abuse	Manifestations	Assessment and Notable Findings
Financial abuse	<p>Inability to pay for medicine, medical care, food, rent, or other necessities</p> <p>Failure to renew prescriptions or keep medical appointments</p> <p>Unexplained worsening of chronic medical problems that were previously controlled</p> <p>Nonadherence to medication regimen or other treatment</p> <p>Malnutrition, weight loss, or both, without an obvious medical cause</p> <p>Depression, anxiety</p> <p>Evidence of poor financial decision making provided by the patient, patient history, or others persons</p> <p>Firing of home care or other service providers by abuser</p> <p>Unpaid utility bills leading to loss of service</p> <p>Initiation of eviction proceedings</p>	<p>Ask about financial exploitation with questions such as “Has money or property been taken from you without your consent?” “Have your credit cards or automated-teller-machine card been used without your consent?” “Have people called your home to try and get you to send or wire money to them?” “At the end of the month, do you have enough money left over for food, rent, utilities, or other necessities?” Direct similar questions to caregivers who are not suspected of being the financial abuser.</p> <p>Conduct a formal assessment of cognition and mood.</p> <p>Be aware that victims may be unwilling to disclose exploitation out of embarrassment.</p> <p>Abrupt changes in the financial circumstances of the caregiver in either direction (e.g., sudden unemployment or extravagant purchases) may also herald an increased risk of financial exploitation or exploitation already under way.</p> <p>Abuse of the power of attorney is the situation in which an older person is inaccurately designated as lacking financial capacity or being unable to perform necessary financial tasks, or in which a lack of capacity is accurately designated but the person with the power of attorney is abusing the role (e.g., using the money improperly). If misrepresentation of the lack of capacity is suspected, the patient should be interviewed to determine whether he or she should be encouraged to resume personal control of financial matters. If there is concern that the person with power of attorney or health care proxy may not be acting in the best interest of the patient, the physician or other members of the interprofessional team should request the necessary documents to ensure that the assumption of fiduciary responsibilities is indeed authorized.</p>
Neglect	<p>Decubitus ulcers</p> <p>Malnutrition</p> <p>Dehydration</p> <p>Poor hygiene</p> <p>Nonadherence to medication regimen</p> <p>Delirium with or without worsening of dementia or dementia-related behavioral problems</p>	<p>Examine the skin for bedsores and infestations.</p> <p>Assess hygiene and cleanliness.</p> <p>Assess appropriateness of dress.</p> <p>Measure drug levels in serum to assess adherence and accuracy of administration of medicines.</p> <p>Measure body-mass index and albumin.</p> <p>Conduct clinical examination to assess nutrition.</p> <p>Measure blood urea nitrogen and creatinine to assess hydration.</p> <p>Conduct a directed physical examination to assess the status of chronic illnesses under treatment.</p> <p>Interview primary caregiver about his or her understanding of the nature of the patient’s care needs and how well care is being rendered.</p> <p>Neglect may be intentional or may be unintentional, stemming from an inability to provide care owing to the caregiver’s frailty, cognitive impairment, mental illness, or limited health literacy.</p>

* The table is adapted from Dyer et al.¹³

dwelling older people (60 years of age or older). In a survey of more than 4000 older people in New York State, the rate of elder abuse was found to be 7.6%^{16,17}; in a national survey by Laumann et al., the rate was 9%,¹² and in a national telephone survey by Acierno et al.,¹⁸ the rate was 10%. It is likely that these figures are underestimates; the reliance on self-reported information from persons who are able to participate in a survey excludes patients with dementia, and studies have shown that dementia places older persons at greater risk for mistreatment.¹⁹

When the available evidence is taken into consideration, an estimated overall prevalence of elder abuse of approximately 10% appears reasonable. Thus, a busy physician caring for older adults will encounter a victim of such abuse on a frequent basis, regardless of whether the physician recognizes the abuse.

RISK FACTORS

Most studies indicate that **older women are more likely than older men to be victims of abuse.**¹²

Among older adults, a younger age has been consistently associated with a greater risk of abuse, including emotional, physical, and financial abuse and neglect.¹² One possible reason for this finding is that the “young old” more often live with a spouse or with adult children, the two groups that are the most likely abusers. A shared living environment is a major risk factor for elder abuse. In particular, living with a larger number of household members other than a spouse is associated with an increased risk of abuse, especially financial¹⁷ and physical²⁰ abuse. Having a lower income has been associated with a greater likelihood of financial abuse, emotional and physical abuse,^{15,21} and neglect.¹⁸ Finally, studies consistently suggest that isolation and a lack of social support are important risk factors for elder abuse.²²

With the exception of dementia, which is a documented risk factor for financial exploitation, specific diseases have not been identified as conferring a greater risk of abuse. In general, however, functional impairment and poor physical health have consistently been shown to be associated with a greater risk of abuse among older persons, irrespective of the cause of such limitations.^{12,21,23,24} Less is known about clinical risk factors for becoming a perpetrator of abuse. On the basis of the limited evidence available, perpetrators are most likely to be adult children or spouses, and they are more likely to be male, to have a history of past or current substance abuse, to have mental or physical health problems, to have a history of trouble with the police, to be socially isolated, to be unemployed or have financial problems, and to be experiencing major stress.^{12,22,25-28}

SEQUELAE

Elder abuse has a range of negative sequelae that extend well beyond the obvious traumatic injury and pain to which the victims may be subjected.²⁹ Studies have shown that victims of elder abuse are at increased risk for death, after adjustment for any chronic illness they may have.^{30,31} Elder abuse greatly increases the likelihood of placement in a nursing home³² and of hospitalization.³³ The psychological effects of abuse, including increased rates of depression, anxiety, and other negative outcomes, have been well documented.³⁴⁻³⁶

CLINICAL EVALUATION

IDENTIFICATION AND SCREENING

Physicians may find the evaluation and treatment of elder abuse unfamiliar and even uncomfortable, since it presents several challenges. First, victims may conceal their circumstances or be unable to articulate them owing to cognitive impairment. Second, the high burden of chronic illness in older people creates both false negative findings (e.g., fractures misattributed to osteoporosis) and false positive findings (e.g., spontaneous bruising misattributed to physical abuse) in the evaluation. For these and other reasons, screening for elder abuse and neglect has not been recommended by the U.S. Preventive Services Task Force.³⁷ Third, cultural and language barriers may hinder the disclosure of abuse. Fourth, in some cases, a definitive determination that abuse is taking place may take weeks or months, and physicians may be required to intervene before such a determination has been made — a strategy that is not typically used in the management of medical conditions. Because of these complicating factors, a positive finding of any of the manifestations listed in Table 1 (bolstered by the physician’s clinical judgment that something may be amiss) should lead to a thorough evaluation by various professionals involved with the patient.

ASSESSMENT STRATEGIES

People suspected to be the victims or the perpetrators of elder abuse should be interviewed separately and alone, both because a relative or caregiver may be the abuser and because victims may be hesitant to reveal mistreatment when others are present because of embarrassment or shame. In addition, separate interviews may uncover differences between the patient’s explanations and those of the relative or caregiver with regard to physical findings (such as mechanism of injury) that increase the likelihood of abuse. Indirect questions can be used initially with the potential victim, since they may be less threatening (e.g., “Do you feel safe at home?” “Does someone handle your checkbook?”). Direct questioning, if necessary, should be similar to that in the investigation of other forms of domestic abuse and can include questions such as “Does anyone in your home hurt you?” and

“Has someone not helped you when you needed their help?” Because dementia increases the risk of elder abuse and because depression is very common among older adults, no evaluation is complete without a formal assessment of cognition and mood, conducted by either the primary care physician or a mental health professional, neurologist, or geriatrician.

The interview of a suspected abuser is best conducted by professionals with expertise in this area. Aggressive accusations or confrontation may lead to an escalation of abuse, the isolation of the potential victim, or both. It is best for the physician to adopt a sympathetic, nonjudgmental approach until all the relevant facts have been ascertained. A detailed review of the patient’s medical records may reveal signs of elder abuse that were missed at the time but that in retrospect point to abuse.³⁸ Ideally, the assessment of a case of suspected abuse should involve a home visit. Because it may not be feasible for a physician to conduct a home visit in each case, interprofessional involvement is an indispensable part of both assessment of the victim and intervention. Referral to Adult Protective Services (APS) typically leads to a home visit, which in turn can provide the physician with additional details about the case.

Assessment strategies can vary according to the type of abuse suspected. Descriptions of typical manifestations of the five common types and the methods of assessment that are useful in evaluating possible cases are provided in Table 1. With respect to physical abuse, researchers have been unable to identify injuries that are clearly diagnostic of abuse in older persons, as has been possible for child abuse. Although forensic research has demonstrated some emerging patterns of physical abuse (e.g., older victims are more likely to have bruising on the face, lateral aspect of the right arm, and posterior torso, including back, chest, lumbar, and gluteal regions, than older adults who have bruising unrelated to abuse),¹⁴ these findings are useful primarily to alert the clinician to the possibility of abuse and should not be viewed as diagnostic for either medical or legal purposes without other corroborating clinical findings or historical information.

Verbal and psychological abuse may be markers for other forms of abuse and may be the only

form that can be observed by clinicians and office staff. The clinical manifestations of verbal and psychological abuse — depression, anxiety, and other forms of psychological distress — which may normally be amenable to pharmacologic and psychotherapeutic intervention, are not likely to remit unless the underlying abuse is detected and mitigated.

The neglect and financial exploitation of older persons share many similarities that make their detection and evaluation especially relevant to clinicians. Whereas signs and symptoms of physical abuse may be directly visible, the manifestations of financial exploitation and neglect can be subtle (e.g., failure to keep appointments or fill prescriptions, weight loss, and frequent visits to the emergency department for diseases that should be well controlled). Abrupt changes in either direction in the financial circumstances of the caregiver (e.g., sudden unemployment or extravagant purchases) may also herald an increased risk of financial exploitation or suggest that exploitation is already under way. In the case of neglect, a standardized assessment of functional status (i.e., dependence in activities of daily living³⁹) should be augmented by asking whether a responsible caregiver or other person has failed to meet the patient’s needs with respect to care. Recent studies suggest that financial exploitation is emerging as the most prevalent form of abuse; by the time cases are detected, the older adult’s financial resources have often been drastically reduced — a fact that makes swift detection and intervention critical.¹⁷

INTERVENTIONS

There have been no large, high-quality randomized, controlled studies of specific and discrete interventions in cases of elder abuse⁹ — a situation that has been identified as leading to a critical knowledge gap in the field.⁴⁰ However, decades of clinical experience and documented best practices in the field provide guidance for practitioners in helping victims. Successful treatment rarely involves the swift and definitive extrication of the victim of abuse from his or her predicament with a single intervention. Instead, successful interventions in cases of elder abuse are typically interprofessional, ongoing, community-based, and resource-intensive. Although

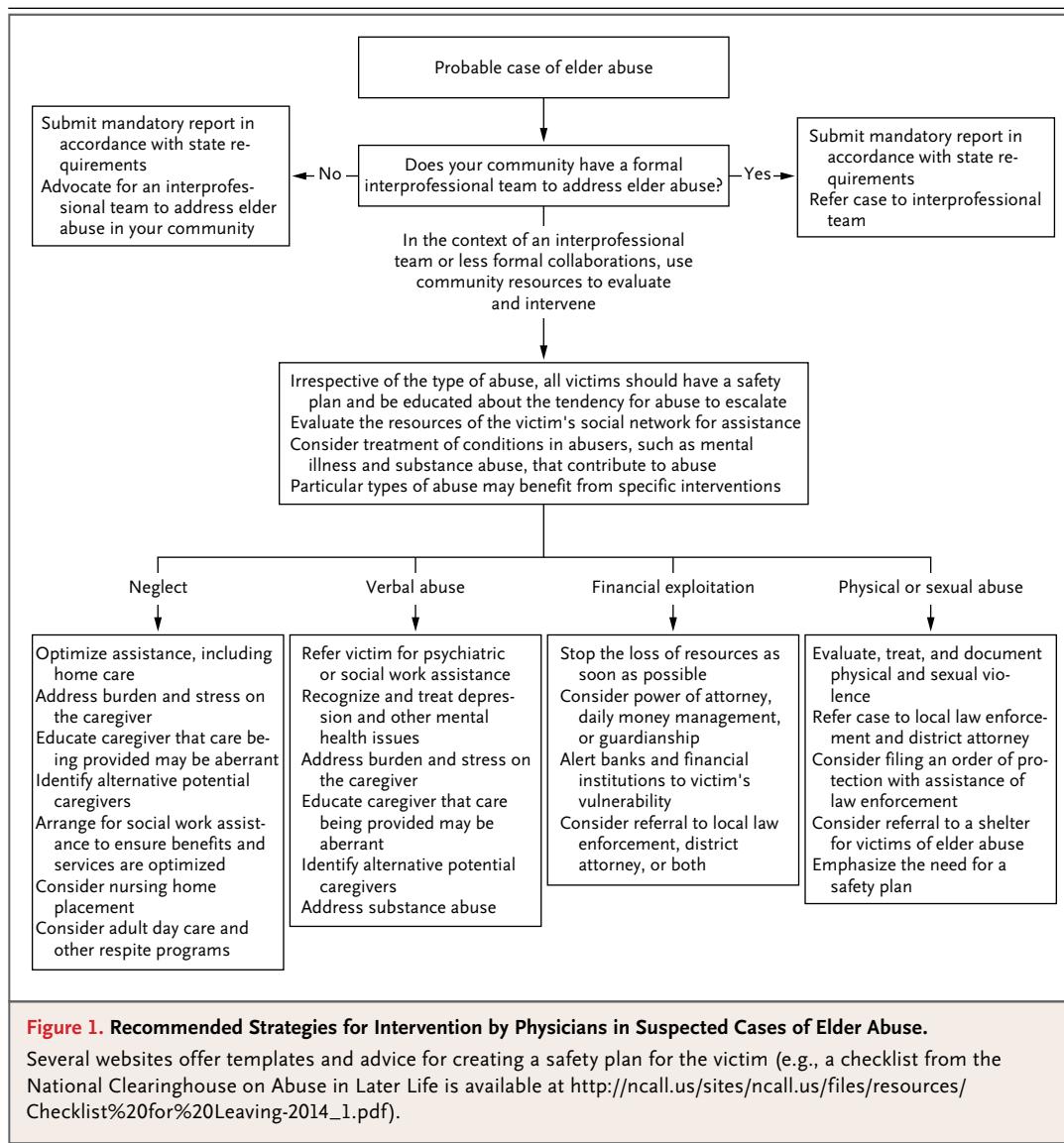
Table 2. Groups Involved in Interprofessional Assessment and Intervention in Cases of Suspected Elder Abuse.

Group	Role	Comments
Adult Protective Services	Receives mandatory reports of suspected abuse in most states	May serve as guardians in some states
Home health care agencies and personnel	Important in both detection and mitigation of abuse	Staff members may be abusers in some situations
Community nongovernmental or nonprofit services and programs for older adults	Provide a variety of programs and services that can mitigate all forms of abuse, including senior centers and home visitation to promote social integration	Some community-service agencies have programs exclusively devoted to preventing elder abuse or dealing with its manifestations (e.g., daily money management and caregiver support)
Police	Often the first responders in cases of elder abuse	Awareness of the importance of training law-enforcement personnel to be sensitive to the needs of older persons is increasing
District attorney's office	Prosecutes cases of elder abuse	Some offices have dedicated units that focus on elder abuse and are separate from domestic-violence units
Housing authority	Handles issues involving eviction, squatting, or misuse of housing for older persons, which are common in cases of elder abuse	Eviction and homelessness can be manifestations of financial exploitation
Legal services agencies	Handle the myriad legal issues that are raised in cases of elder abuse, including decision-making capacity, living wills, and guardianship	Guardians may be financial abusers
Physicians	Play a critical role in identifying mistreatment and making appropriate referrals	Physicians are mandatory reporters of elder abuse in all states that have mandatory-reporting laws
Hospital personnel	Need to be prepared to identify cases of elder abuse	Medical personnel often fail to identify elder abuse, because of clinical and time pressures. The Joint Commission on Accreditation of Healthcare Organizations has guidelines with respect to elder abuse; accreditation may be jeopardized if protocols are absent or inadequate
Nursing homes	Can use excess capacity to house victims safely and provide services, as part of the growing movement in the United States to provide shelter to abused older persons	Elder abuse can occur in long-term care facilities; resident-to-resident abuse is increasingly recognized as the most common form of abuse in such settings
Banks and financial services industry	Critical to the detection of financial exploitation	Institutions in some communities train tellers and other employees to detect exploitation of older persons' finances

physicians have an important role to play in the medical components of those interventions, it will usually not be feasible for them to initiate or sustain successful interventions in cases of elder abuse on their own. Therefore, the most important tasks for the physician are to recognize and identify elder abuse, to become familiar with resources for intervention that are available in the local community, and to refer the patient to and coordinate care with those resources.

Table 2 lists services and organizations that are typically involved in intervention in cases of elder abuse and their roles; Figure 1 illustrates

an overarching, interprofessional approach to intervening in the case of an identified or probable victim. APS is the federal program that receives mandatory reports of suspected abuse and is typically at the center of case investigations. Forty-nine states (New York is the exception) have mandatory reporting laws that require designated reporters (including physicians) to report even the suspicion of abuse to APS, law enforcement, or a regulatory agency. An APS worker then typically visits the home and conducts an investigation with the goal of verifying or refuting the concern. If abuse is identified, interventions are then undertaken that are both



tailored to the circumstances of the victim's situation and highly dependent on the resources of the local environment and on the resources and dynamics of the family. The physician can serve as a highly useful resource for APS workers as they pursue their investigation.

Different situations require different interventions in cases of abuse. **Psychiatrically ill abusers may require mandated mental health treatment. Persons who abuse an older person as a result of the burdens of caregiving may need respite services or more home health care for an impaired family member.** Elder abuse that is tied to substance abuse is treated with an entirely

different series of interventions. Physicians have important roles to play in all these circumstances, and abuse need not be definitively proved before targeted geriatric services, such as physical therapy, home health care, mental health services, optimization of treatment for chronic diseases, coordination of care, and attention to restoration of the highest level of practical functioning, are initiated to relieve the situation in which the abuse occurred.

Because the prevalence of cognitive impairment from dementia (the most common cause of incapacity in the older adult population) is so high, a critical consideration in all cases of elder

abuse is whether the victim has decision-making capacity and is able to accept or refuse intervention. Depending on the degree of impairment, as well as on the state laws governing who can make such determinations, assessment of such capacity typically requires the participation of a psychiatrist or geriatrician, either as part of the APS team or through private referral. Patients who refuse interventions and lack decision-making capacity often need legal interventions, such as the appointment of a guardian. In such a case, the physician's role is to provide evidence from the physical examination and history that support the presence or absence of decision-making capacity and sometimes to participate in guardianship proceedings so as to ensure that the alleged abuser does not become the guardian.

The most promising response to the complex nature of cases of elder abuse has been the development of interprofessional teams. Evidence suggests that interprofessional teams, also referred to as multidisciplinary teams, consisting of physicians, social workers, law-enforcement personnel, attorneys, and other community participants working together in a coordinated fashion, are the best practical approach to assisting victims.^{41,42} Led by a coordinator (typically a social worker or nurse), the interprofessional teams meet on a regular basis to discuss difficult cases in the local community and to coordinate an effective response. A plan of action is developed, with individual team members assigned to specific tasks, and a time frame for follow-up is specified (a mock interprofessional team meeting can be viewed at <http://nyceac.com/clinical-services/mdts>). The data on interprofessional teams suggest that the teams improve efficiency, coordination, and professional support among team members.⁴³

Many physicians do not have the luxury of formal interprofessional teams to respond to elder abuse in their communities, but the presence of several of the necessary agencies (including APS) and professionals creates the potential for forming such a team. Physicians can cultivate these relationships, both to serve victims of elder abuse and as a step toward developing interprofessional teams in their communities. Indeed, one of the most helpful contributions a physician can make with regard to elder abuse is to serve as the catalyst for the formation of an interprofessional team in the local community. Detailed guidance on creating an interprofes-

sional team is available from the National Center on Elder Abuse (http://ncea.aoa.gov/Stop_Abuse/Teams/index.aspx#traditional).

ELDER ABUSE IN LONG-TERM CARE FACILITIES

Concern about elder abuse in nursing homes first came to widespread public attention in the 1970s, when facilities were relatively unregulated and had little oversight. The Omnibus Budget Reconciliation Act of 1987, which created a federal framework for the standardized assessment and care of nursing home residents, heightened both awareness and reporting of elder abuse in nursing homes. Although no scientific studies of the prevalence of abuse have been conducted in these settings, the available observational and clinical evidence suggests that mistreatment of residents by staff members occurs with sufficient frequency to be of concern to physicians.⁴⁴ Studies have pointed to the very high prevalence of mistreatment of nursing home residents by other residents, in the form of physical, verbal, and sexual aggression.^{2,3,45} Physicians should be alert to this possibility when examining and treating nursing home residents, because clinically significant injuries have been found to result from resident-to-resident aggression.⁴⁶

Whatever the cause of the abuse, physicians may encounter abused patients in nursing homes — when serving either as primary care physicians in the facility or as consultants when patients are transferred to emergency departments or hospitals. Every state has a reporting mechanism whereby the suspicion of abuse in nursing homes (or in other types of long-term care facilities) can be reported and investigated, and physicians should report their concerns accordingly. The National Center on Elder Abuse maintains a website with contact numbers and a directory of ombudsman offices in each state for this purpose at http://ncea.acl.gov/Stop_Abuse/Get_Help/State/index.aspx.

CONCLUSIONS

Because victims of elder abuse tend to be isolated, their interactions with physicians, which may be intermittent or rare, present critically important opportunities to recognize elder abuse and to intervene or refer the victims to appropriate

providers. Advances in our understanding of the many manifestations of elder abuse and the emergence of interprofessional-team approaches also point to an important role for physicians in addressing this major public health problem. Both research and clinical experience suggest that cases of elder abuse can rarely, if ever, be successfully treated by the physician alone. Therefore, the response of the medical professional

must include connecting with specialists in other disciplines, including social work, law enforcement, and protective services, ideally in the context of an interprofessional-team approach.

Dr. Lachs reports having provided expert testimony in cases related to elder abuse. No other potential conflict of interest relevant to this article was reported.

Disclosure forms provided by the authors are available with the full text of this article at NEJM.org.

REFERENCES

- Burston GR. Granny-battering. *Br Med J* 1975;3:592.
- Pillemer K, Chen EK, Van Haitsma KS, et al. Resident-to-resident aggression in nursing homes: results from a qualitative event reconstruction study. *Gerontologist* 2012;52:24-33.
- Rosen T, Lachs MS, Bharucha AJ, et al. Resident-to-resident aggression in long-term care facilities: insights from focus groups of nursing home residents and staff. *J Am Geriatr Soc* 2008;56:1398-408.
- Blowers AN, Davis B, Shenk D, Kalaw K, Smith M, Jackson K. A multidisciplinary approach to detecting and responding to elder mistreatment: creating a university-community partnership. *Am J Crim Justice* 2012;37:276-90.
- Navarro AE, Gassoumis ZD, Wilber KH. Holding abusers accountable: an elder abuse forensic center increases criminal prosecution of financial exploitation. *Gerontologist* 2013;53:303-12.
- Cooper C, Manela M, Katona C, Livingston G. Screening for elder abuse in dementia in the LASER-AD study: prevalence, correlates and validation of instruments. *Int J Geriatr Psychiatry* 2008;23:283-8.
- De Donder L, Luoma ML, Penhale B, et al. European map of prevalence rates of elder abuse and its impact for future research. *Eur J Ageing* 2011;8:129-43.
- Johannesen M, LoGiudice D. Elder abuse: a systematic review of risk factors in community-dwelling elders. *Age Ageing* 2013;42:292-8.
- Ploeg J, Fear J, Hutchison B, MacMillan H, Bolan G. A systematic review of interventions for elder abuse. *J Elder Abuse Negl* 2009;21:187-210.
- Sooryanarayana R, Choo WY, Hair NN. A review on the prevalence and measurement of elder abuse in the community. *Trauma Violence Abuse* 2013;14:316-25.
- Lachs MS, Pillemer K. Elder abuse. *Lancet* 2004;364:1263-72.
- Laumann EO, Leitsch SA, Waite LJ. Elder mistreatment in the United States: prevalence estimates from a nationally representative study. *J Gerontol B Psychol Sci Soc Sci* 2008;63:S248-54.
- Dyer CB, Connolly MT, McFeeley P. The clinical and medical forensics of elder abuse and neglect. In: Wallace RB, Bonnie RJ, eds. *Elder mistreatment: abuse, neglect, and exploitation in an aging America*. Washington, DC: National Academies Press, 2003:339-81.
- Wiglesworth A, Austin R, Corona M, et al. Bruising as a marker of physical elder abuse. *J Am Geriatr Soc* 2009;57:1191-6.
- Brozowski K, Hall DR. Aging and risk: physical and sexual abuse of elders in Canada. *J Interpers Violence* 2010;25:1183-99.
- Burnes D, Pillemer K, Caccamise PL, et al. Prevalence of and risk factors for elder abuse and neglect in the community: a population-based study. *J Am Geriatr Soc* 2015;63:1906-12.
- Peterson JC, Burnes DP, Caccamise PL, et al. Financial exploitation of older adults: a population-based prevalence study. *J Gen Intern Med* 2014;29:1615-23.
- Acierno R, Hernandez MA, Amstatter AB, et al. Prevalence and correlates of emotional, physical, sexual, and financial abuse and potential neglect in the United States: the National Elder Mistreatment Study. *Am J Public Health* 2010;100:292-7.
- Dong X, Chen R, Simon MA. Elder abuse and dementia: a review of the research and health policy. *Health Aff (Millwood)* 2014;33:642-9.
- Pillemer K, Finkelhor D. The prevalence of elder abuse: a random sample survey. *Gerontologist* 1988;28:51-7.
- Brozowski K, Hall DR. Growing old in a risk society: elder abuse in Canada. *J Elder Abuse Negl* 2005;16:65-81.
- Amstatter AB, Cisler JM, McCauley JL, Hernandez MA, Muzzy W, Acierno R. Do incident and perpetrator characteristics of elder mistreatment differ by gender of the victim? Results from the National Elder Mistreatment Study. *J Elder Abuse Negl* 2011;23:43-57.
- Giraldo-Rodríguez L, Rosas-Carrasco O. Development and psychometric properties of the Geriatric Mistreatment Scale. *Geriatr Gerontol Int* 2013;13:466-74.
- Wu L, Chen H, Hu Y, et al. Prevalence and associated factors of elder mistreatment in a rural community in People's Republic of China: a cross-sectional study. *PLoS One* 2012;7(3):e33857.
- Chokkanathan S, Lee AE. Elder mistreatment in urban India: a community based study. *J Elder Abuse Negl* 2005;17:45-61.
- Oh J, Kim HS, Martins D, Kim H. A study of elder abuse in Korea. *Int J Nurs Stud* 2006;43:203-14.
- Soares J, Barros H, Torres-Gonzales F, et al. Abuse and health among elderly in Europe. Kaunas, Lithuania: Lithuania University of Health Sciences Press, 2010.
- O'Keeffe M, Hills A, Doyle M, et al. UK Study of Abuse and Neglect of Older People: prevalence survey report. London: National Centre for Social Research, 2007 (<http://www.natcen.ac.uk/media/308684/p2512-uk-elder-abuse-final-for-circulation.pdf>).
- Murphy K, Waa S, Jaffer H, Sauter A, Chan A. A literature review of findings in physical elder abuse. *Can Assoc Radiol J* 2013;64:10-4.
- Schofield MJ, Powers JR, Loxton D. Mortality and disability outcomes of self-reported elder abuse: a 12-year prospective investigation. *J Am Geriatr Soc* 2013;61:679-85.
- Lachs MS, Williams CS, O'Brien S, Pillemer KA, Charlson ME. The mortality of elder mistreatment. *JAMA* 1998;280:428-32.
- Lachs MS, Williams CS, O'Brien S, Pillemer KA. Adult protective service use and nursing home placement. *Gerontologist* 2002;42:734-9.
- Dong X, Simon MA. Elder abuse as a risk factor for hospitalization in older persons. *JAMA Intern Med* 2013;173:911-7.
- Dong X, Chen R, Chang ES, Simon M. Elder abuse and psychological well-being: a systematic review and implications for research and policy — a mini review. *Gerontology* 2013;59:132-42.
- Mouton CP, Rodabough RJ, Rovi SL, Brzyski RG, Katerndahl DA. Psychosocial effects of physical and verbal abuse in postmenopausal women. *Ann Fam Med* 2010;8:206-13.
- Gibbs L, Mosqueda L. Elder abuse: a medical perspective. *Aging Health* 2010;6:739-47.
- Moyer VA. Screening for intimate partner violence and abuse of elderly and vulnerable adults: U.S. Preventive Services

Task Force recommendation statement. *Ann Intern Med* 2013;158:478-86.

38. Lachs MS, Williams CS, O'Brien S, et al. ED use by older victims of family violence. *Ann Emerg Med* 1997;30:448-54.

39. Katz S. Assessing self-maintenance: activities of daily living, mobility, and instrumental activities of daily living. *J Am Geriatr Soc* 1983;31:721-7.

40. Pillemer K, Connolly MT, Breckman R, Spreng RN, Lachs MS. Elder mistreatment: priorities for consideration by the White House Conference on Aging. *Gerontologist* 2015;55:320-7.

41. Teaster PB, Nerenberg L, Stansbury KL. A national look at elder abuse multidisciplinary teams. *J Elder Abuse Negl* 2003;15:91-107.

42. Rizzo VM, Burnes D, Chalfy A. A systematic evaluation of a multidisciplinary social work-lawyer elder mistreatment intervention model. *J Elder Abuse Negl* 2015;27:1-18.

43. Navarro AE, Wilber KH, Yonashiro J, Homeier DC. Do we really need another meeting? Lessons from the Los Angeles County Elder Abuse Forensic Center. *Gerontologist* 2010;50:702-11.

44. Castle N, Ferguson-Rome JC, Teresi JA. Elder abuse in residential long-term care: an update to the 2003 National Research Council report. *J Appl Gerontol* 2015;34:407-43.

45. McDonald L, Sheppard C, Hitzig SL, Spalter T, Mathur A, Mukji JS. Resident-to-resident abuse: a scoping review. *Can J Aging* 2015;34:215-36.

46. Shinoda-Tagawa T, Leonard R, Pontikas J, McDonough JE, Allen D, Dreyer PI. Resident-to-resident violent incidents in nursing homes. *JAMA* 2004;291:591-8.

Copyright © 2015 Massachusetts Medical Society.

AN NEJM APP FOR IPHONE

The NEJM Image Challenge app brings a popular online feature to the smartphone. Optimized for viewing on the iPhone and iPod Touch, the Image Challenge app lets you test your diagnostic skills anytime, anywhere. The Image Challenge app randomly selects from 300 challenging clinical photos published in NEJM, with a new image added each week. View an image, choose your answer, get immediate feedback, and see how others answered. The Image Challenge app is available at the iTunes App Store.