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**The Development of Quality Indicators to Address Abuse and Neglect in Home-Based
Primary Care and Palliative Care**

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ABSTRACT

Background: As many as 1 in 10 older adults have been victims of elder abuse perpetrated in their homes. Despite mandatory reporting laws in all American states, many cases remain undiagnosed and unreported each year. No quality indicators exist for measuring the quality of how home-based medical care, i.e. home-based primary care and palliative care practices recognize and manage abuse and neglect.

Objective: To develop candidate quality indicators for the quality standard of “addressing abuse and neglect” in the setting of home-based medical care.

Methods: We performed a systematic literature review of both the peer-reviewed and grey literature to identify articles to inform the development of candidate indicators of the quality by which abuse and neglect is addressed by home based primary and palliative care practices. The literature guided the development of patient-level quality indicators and practice-level quality standards. A technical expert panel (TEP) representing exemplary home-based primary care and palliative care providers then participated in a modified Delphi process to assess the validity and feasibility of each measure, and identify candidate quality indicators suitable for testing in the field.

Results: The literature review yielded 4,371 titles and abstracts, which were reviewed. 25 publications met final inclusion criteria and informed development of 9 candidate quality indicators. The TEP rated all but one of the 9 candidate indicators as having high validity and feasibility.

Implications: Translating the complex issue of addressing abuse and neglect into quality indicators may ultimately serve to improve care delivered to vulnerable home-limited adults who receive home-based medical care.

INTRODUCTION

Elder abuse and neglect is a serious issue that has important negative sequelae for its victims, and includes any intentional action that causes harm or creates a serious risk of harm to a vulnerable elder by a person who stands in a trust relationship.(1) Studies suggest that between 2 and 11% of the nation's older adult population experience abuse, neglect, financial exploitation or self-neglect each year, but unfortunately these figures are likely a gross underestimate of the true burden of elder abuse.(1, 2) Despite mandatory reporting laws, many abuse cases go undetected and untreated each year.(1, 3-6) Screening for elder abuse is a vital first step, but more needs to be done beyond screening. When abuse is identified or suspected, healthcare providers must act to address it through reporting, interventions, safety planning and other measures.(7) For many older adults, especially those who are housebound and not regularly interacting with the community, medical home visits provided in the context of home-based primary care and home-based palliative care practices offer a unique opportunity to observe both the older adult and their caregivers, evaluate risk factors, and detect and address abuse if present. (8)

The United States Institute of Medicine defines quality of care as 'the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge.(9) Indicators of quality are based on standards of care. These can be evidence-based and derived from the academic literature or, when scientific evidence is incomplete, determined by an expert panel of health professionals in a consensus process based on their experience.(10) Unlike guidelines or recommendations that aim to capture best practice, quality indicators (QIs) represent a minimally acceptable standard of

care in a given population(11) and have become increasingly important in the rapid movement of the US healthcare system towards providing value-based care.

There has been rapid growth in the development of QIs designed for use in settings such as the acute hospital(12, 13), ambulatory settings(14), and others.(15) However, there are currently no quality of care framework or set of nationally recognized and widely used quality indicators specifically for home based primary care and palliative care.(16) The recently established National Home-Based Primary Care and Palliative Care Network (HBPCPCN or “Network”) has developed a quality of care framework consisting of 10 quality of care domains, 32 subdomains or quality standards, as well as a set of 20 draft quality indicators for patients served by these practices.(17) As part of its initial work, the Network examined quality indicators that had been previously endorsed by the National Quality Forum for other care settings to determine if some might be appropriate to use or adapt for home-based medical care. The Network found currently endorsed quality indicators that could be mapped to 20 of the 32 quality of care standards; the remaining 12 standards were termed “gap areas”. One such gap area relates to addressing elder abuse and neglect.

With this work we aim to fill a critical gap in quality measurement for home-based primary care and palliative care through the development of candidate quality indicators focused on the quality standard of “addressing abuse and neglect.”

METHODS

Identification of the Gap Area

In 2013, two of the authors (BL, CR)(17) led the development of the HBPCPCN, which identified ten quality-of-care domains and thirty-two quality of care standards deemed appropriate for home-based medical care. They examined 1200 endorsed quality measures from the National Quality Forum library of endorsed measures, among other sources, and mapped 286 candidate quality measures to their 32 quality standards. No quality measures were identified that could be mapped to twelve of the thirty-two quality standards, so-called “gap areas”. The HBPCPCN is now working to identify candidate measures to assess quality of care in these “gap areas”. One gap area, “Address Abuse and Neglect” is the focus of this work.

Definitions

Elder abuse or elder mistreatment included psychological, physical and sexual abuse, neglect (both caregiver and self-neglect), and financial exploitation. (18) Although the overlap between elder self-neglect and other forms of elder abuse is not entirely clear, elder self-neglect remains the most common reported form of elder abuse (19). We chose to include self-neglect in our definition as it is so frequently encountered in home-based medical care. As a first step in a field in which no quality of care measures currently exist, our goal was to develop a quality indicator that would address all forms of elder mistreatment.

Systematic Literature Review

Working with a clinical informationist, we identified and refined MESH and keyword search terms which identified any work that discussed addressing abuse and/or neglect. The purpose of

the literature review was to identify any existing indicator or inform the wording of a candidate indicator to measure how abuse and neglect are addressed in home-based primary or palliative care. Three concepts were included in the search: “older adult,” “abuse and/or neglect,” and “reporting or addressing.” Systematic searches were performed of both the peer-reviewed and grey literature. Search terms were further refined to facilitate searches of the Cochrane library, CINAHL, EMBASE, Web of Science, SCOPUS, the New York Academy of Medicine Grey Literature Review, the NLM catalog and the database of ProQuest Digital Theses and Dissertations.

The final Pubmed search is provided in Figure 1. Searches were restricted to articles relating to humans from 1997 onwards and those in the English language. Similar searches were performed of relevant journals not indexed in Medline including Home Health Care Management and Practice, the Journal of Elder Abuse and Neglect (indexed from 2006 only) and the Journal of Social Work (indexed from 2001 only). All searches were performed between September and November 2014. Titles and abstracts of all publications were reviewed to identify relevant articles. A google search was performed and the first 300 hits reviewed. A search was also performed for relevant national and international guidelines, as well as the websites of advocacy groups. Hand searches were conducted of the reference lists of retrieved articles.

All articles were entered into a reference manager, Endnote v6. Duplicates were removed and the search results were reviewed in a three-step process. First we screened the titles of retrieved articles for relevance to the study aim. Second, abstracts of relevant titles were reviewed in detail. Third, full length manuscripts, publications or guidelines were obtained for any studies

which discussed or provided specific recommendations for addressing abuse or neglect and therefore had the potential to inform the development of candidate gap measures. Relevant information from selected articles were entered into an excel spreadsheet.

Devising preliminary QIs

Following the systematic literature review, relevant articles were reviewed for content to inform the development of a preliminary set of candidate quality indicators. Quality indicators are measurements of health care quality that are often used to gauge performance. Our original intention was to develop only patient-level quality indicators, each with a numerator and denominator, where the numerator defined the process of care to be performed on behalf of a patient, and the denominator defined the eligible population of home-based medical care patients. However, as we engaged in this process, we also identified practice-level standards in the realm of addressing abuse and neglect that could guide practice-based quality improvement and be used in the future to inform the development of home-based medical care practice standards that could be incorporated into practice accreditation processes. Practice standards outline the expectations for practices and are benchmarks that all practices should achieve in order to deliver high quality care. Such practice-level standards were structured as yes/no questions and aimed to ascertain whether or not a home-based medical practice engaged in a recommended process of care.

Technical Expert Panel Meeting and scoring of QIs using RAND Appropriateness Method

In May 2015, the HBPCPCN hosted a technical expert panel (TEP) meeting of eight Network expert members representing exemplary home-based primary care and palliative care practices.

The TEP members were all experts in the field of home-based care. Before the in-person meeting all TEP members pre-rated the candidate quality indicators for validity and feasibility using the RAND modified-Delphi process.(20) In brief, experts rated each indicator on two 1-9 scales, one for validity and one for feasibility with 1 representing “not valid” or “not feasible” and 9 representing “definitely valid” or “definitely feasible”. We defined a patient-level quality indicator or practice-level standard to be valid if the measure was clear and explicit and adequate scientific evidence or professional consensus existed to support a strong link between the performance of specified care and outcomes. We asked our TEP members to rate feasibility of implementation of the patient-level quality indicator or practice-level standard based on an average home-based medical care practice trying to deliver high quality care and taking into consideration factors such as staffing resources, physician resources and expense.

At the in-person meeting TEP members discussed definitions, current knowledge and existing practices related to identifying and addressing elder abuse in home-based medical care practices. (15, 21, 22) Members of the TEP were asked to consider all forms of abuse and neglect they encounter in their practice when rating an indicator and not to only consider physical abuse. Reporting was seen as one of the many avenues available for addressing abuse. Most members felt that reporting was the most quantifiable method of determining if the abuse or neglect had been addressed and that other avenues such as contacting a financial institution or lawyer in the case of financial exploitation would not be suitable methods to address other forms of abuse and therefore would not be generalizable in the context of a quality indicator. During discussions of the merits and issues of each quality indicator, the panel was given the option to suggest additional candidate indicators or to modify the wording of the proposed candidate indicators before a

further round of anonymous voting on the validity and feasibility of each quality indicator. Following extensive discussions, each measure was re-rated for validity and feasibility on the same 1-9 scale. Indicators and standards with a mean validity rating of ≥ 7.0 and without disagreement were considered valid. Disagreement was defined as two or more panelists rating the indicator in the highest tertile (rating of 7, 8 or 9), and two in the lowest tertile (rating of 1, 2, or 3). Indicators with a mean feasibility rating ≥ 7.0 were considered feasible.

RESULTS

Following a review of the title and abstracts of 2799 publications, our systematic review of the peer-reviewed literature identified twenty relevant articles. A further five items were identified from the search of the grey literature following review of a further 1572 titles and abstracts. The search strategy and results are outlined in Figure 2, and relevant articles are summarized in Table 1. No existing quality indicators in the field were identified through the search so the information summarized in Table 1 was used to inform the wording of candidate quality indicators.

Relevant concepts and wording from the 25 identified articles were grouped into 3 categories: a) education, b) guidelines on what to report and to whom, and c) multidisciplinary approaches to intervention in cases of suspected elder mistreatment.

The literature search revealed differences in the recommended approaches to addressing different forms of abuse. Most sources specified that U.S. state laws and guidelines be followed regarding mandatory reporting of abuse.(7, 23-25) Reporting requirement differences between suspected and confirmed cases of abuse in different states and a lack of physician knowledge of individual state reporting (8, 26) requirements were rarely discussed. Differences also arise in the types of abuse mandated for reporting with many states not including “self-neglect”.

Many articles concentrated mainly on identifying abuse with a short section at the end advising that the abuse be reported but with little or no mention of additional ways the provider can address the abuse and support the victim. Interdisciplinary (18) and multidisciplinary (1, 27-29) approaches to addressing abuse were suggested by some groups, but this collaborative approach was more heavily promoted to address financial abuse (30-32) rather than all forms of abuse. In

the case of sexual abuse the Criminal Justice System was suggested as the first place to report cases.(33)

One patient-level candidate quality indicator and five candidate practice-level standards were developed by the research team to bring forward to the TEP. After discussion at the TEP meeting three additional practice-based standards were proposed. The expert panel voted on the patient-level measure and the eight practice-level standards (Table 2). The patient-level quality indicator had median validity and feasibility of 7.0. All but one practice standard had both median validity and feasibility scores in the 7-9 range. The patient and practice measures with the highest scores, which were therefore selected for future testing with practices in the field, are highlighted in bold in table 2.

DISCUSSION

We set out to address the absence of endorsed quality indicators in an important measure “gap area” for home-based primary care and palliative care through the development of candidate quality indicators for the quality standard of “addressing abuse and neglect.” Through a systematic literature review and modified-Delphi process with experts, we successfully developed quality indicators to establish if home-based primary care and palliative care practices “address abuse and neglect.”

Two measures, one patient-level and one practice-level measure have been selected for testing in home-based medical care practices. The patient-level quality indicator seeks to identify the number of cases of elder mistreatment reported to Adult Protective Services (APS) or the Criminal Justice System in the previous 12 months relative to the number of suspected cases. The practice level standard examines if practices have written protocols in place and provide training on addressing suspected elder mistreatment.

Our systematic literature review identified three main approaches (i) the development of guidelines indicating how to address abuse (ii) the provision of education and training to healthcare staff, and (iii) the involvement of interdisciplinary specialist teams in addressing abuse. Subtle differences in mandatory reporting requirements, a lack of physician awareness of individual state laws, and confusion over what to report and to whom undoubtedly contribute to underreporting of elder abuse.(8, 23, 27) Our patient-level quality indicator (number of suspected cases reported) seeks to document if all cases of suspected abuse are reported. As definitions and reporting requirements vary between states, practices would apply this indicator based on local

state regulations and laws. Obtaining accurate information in this area will likely be challenging, as suspected cases are often not documented as such. This measure however is an important first step towards a systematic approach to management of abuse and neglect. Likewise, we are reassured by the median feasibility score of 7.0 given by our TEP to the measure, and we believe this quality indicator can provide useful information.

Our practice-level standard will capture the number of practices that have written protocols but also provide training on addressing suspected elder mistreatment. Clear, consistent reporting guidelines known by all health care professionals are vital to successfully addressing abuse. The development of practice-based referral protocols and guidelines not only encourage referral but also provide guidance on which agency should receive the referral.(33, 34) Education and training sessions not just for physicians (27) but for all team members (7, 35-37) should be a mandatory component of new staff orientation and continuing education sessions. These educational sessions are needed to keep the possibility of abuse in the forefront of all persons in the practice who provide care in the home.(38) In our discussions with the TEP the issue of who should receive training arose, specifically if training should be provided to “all providers” or to “all staff” in a practice. Most members felt that if “all staff” were included in the standard then there would be a requirement for office based staff members who never interacted with patients to receive training and they did not believe that this would be feasible in many of their practices. We believe that this opinion was reflected in the lower feasibility and validity rating given to that particular quality standard.

Collaborations between health and social care services,(30) as well as representatives from legal, financial and APS,(28, 31) represent the gold standard approach to addressing cases of suspected abuse. In developing the first candidate quality indicators for addressing abuse and neglect in home-based practices, we chose not to include this team based approach as a pilot indicator. It is clear from discussions among our TEP members that most practices do not have staff from more than 2 disciplines, and a substantial proportion does not have interdisciplinary team meetings on a regular basis. While access to an interdisciplinary team (IDT) specialized in elder abuse remains aspirational for most practices at this time, we hope that this will be a quality indicator we can consider piloting in the future. As practices capabilities improve over time or as practices develop broader and more effective collaborations with health systems and community-based resources, their ability to deploy multidisciplinary assets relative to elder abuse will improve.

In our measures we were careful not to specify one certain type of abuse, as all forms of abuse need to be addressed, reported and acted upon with the safety of the older person as the first priority. Finding a measure that is both valid but also feasible to implement is challenging. As we quickly discovered from the discussion with our TEP, education, training, assessment procedures and staffing vary hugely even among exemplary practices, making the operationalization of quality indicators more challenging for some practices than others. The differences across practices highlight the urgent need for quality indicators to assess whether quality of care is consistent across all house calls practices and whether these practices consistently deliver a high standard of care.

Strengths of this work include first the systematic and comprehensive nature of the literature review used to inform the development of candidate measures that included both the peer-reviewed and grey literature and second the selection process for feasible and valid measures using a panel of experts from exemplary home-based primary care and palliative care practices. The limitations of our systematic review to identify candidate measures largely reflect the shortcomings of the field and the lack of high quality evidence to support any one quality indicator. The possibility that our search terms and multiple overlapping searches of both the peer-reviewed and grey literature failed to identify a relevant paper or source of information is low but remains a possibility. We also acknowledge that although we have successfully developed candidate measures, these alone will not change practice but will merely open the door to quality improvement in the home based primary and palliative care field.

Going forward, we plan to test the feasibility and usability of our measures among several home-based medical practices. Further, we are in the process of developing a qualified clinical data registry (QCDR) and the patient-level quality indicator we have developed will be included in the QCDR.(39)

We have successfully developed quality indicators to gauge whether abuse and neglect are being addressed by home-based primary care and palliative care practices at the patient and practice levels. It is not good enough to merely identify abuse. We need to address it and take action. Elder abuse is a pervasive public health issue, and the identification of quality indicators is the first step along the path to enable practice and policy changes that safeguard our vulnerable older population.

Board Member		X	X			X		X		X	X	
Patents		X		X		X		X		X		X
Personal Relationship		X		X		X		X		X		X

*Authors can be listed by abbreviations of their names.

For “yes” x mark(s): give brief explanation below:

For BL: Grants: Commonwealth Fund, Retirement Research Foundation; Consultant: Clinical advisory board member to Landmark Health;

Board member: American Academy of Home Care Medicine- member board of directors. Alliance for Home Health Quality and Innovation – member, board of directors

For CR: Grants: Commonwealth Fund, Retirement Research Foundation; Board member/President: American Academy of Hospice and Palliative Medicine

Author Contributions:

OCS contributed to study concept and design, acquisition of data, analysis and interpretation of data and drafting and revision of the manuscript. CSR and BL contributed to study concept and design, acquisition of subjects and/or data, analysis and interpretation of data and critical review of manuscript. DS, SKG and RF contributed to study concept and design and critical review of manuscript.

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Table 1. Relevant papers, reports and documents identified through the literature review.

PEER-REVIEWED LITERATURE			
Study	Report type	Suggested process to address abuse	Potential candidate quality indicator informed by the study
Allison et al. (1998)(27)	Review of the emergency medicine perspective on elder abuse	Suggested using a flexible intervention model, recommend using existing MDT with elder mistreatment training, mandatory reporting, physicians familiar with state reporting law.	Does the practice have a MDT with elder mistreatment training? Have all physicians received training in their particular state reporting law?
Swagerty et al. (1999)(28)	Review article on elder mistreatment including management and reporting	Involve a specialist MDT (geriatrician, social worker, case management nurses, representatives from legal, financial and APS) in management of suspected elder mistreatment.	Does the practice have access to a specialist MDT?
Pang et al. (2000)(25)	Editorial on elder abuse outlining physician responsibilities to recognize, manage and report.	ACEP recommend written protocols on recognition and treatment of elder abuse and for hospitals to have the necessary staff and resources to assess and assist abused or neglected individuals.	Does the practice have the necessary staff and resources to assess and assist individuals identified to be abused or neglected? Does the practice have written protocols on treatment of elder abuse?
Anetzberg et al. (2001)(40)	Review of importance of screening tools and referral protocols	Referral protocols enable service providers to decide which agency is appropriate for receiving an elder abuse report.	Does the practice have a referral protocol to enable providers to decide which agency is appropriate for receiving an elder abuse report?
Ahmad et al. (2002)(24)	Review of what physicians should do in cases of abuse	Report all suspected cases, the primary care physician should also participate in the ongoing management once the case is reported.	Have all physician suspected cases of elder abuse been reported?
Teitelman et al. (2002)(35)	Invited article on guidelines for recognition / intervention in cases of sexual abuse	Report suspicions to appropriate authorities.	Have all team members received education on reporting procedures?
Wong et al.	Review article	Postgraduate training in elder abuse associated with improved	Has all staff received training on elder abuse?

(2002)(37)		knowledge of history, physical and legal aspects of elder abuse.	
Lachs et al. (2004)(41)	Literature review and discussion on aspects of elder abuse	If elder abuse is possible, a comprehensive assessment is necessary which needs substantial clinical and psychosocial expertise. Multiple intervention strategies suggested.	Have intervention strategies been employed by the practice?
Brandl et al. (2007)(29)	Book on elder abuse detection and intervention	Recommended IDT approach to elder abuse intervention.	Does the practice perform IDT assessment of suspected elder mistreatment?
Gibbs et al. (2007)(42)	Editorial on the importance of reporting mistreatment of the elderly	Emphasized the obligation of physicians regarding mandatory reporting.	Have all suspected cases of elder mistreatment been reported? Are all physicians in the practice aware of the rules regarding reporting of elder mistreatment? Does the practice have a policy/protocol giving clear guidelines on reporting suspected elder mistreatment?
Bufalini et al. (2008)(33)	Poster presentation on the elder abuse reporting threshold using case vignettes	Correct identification of agencies to which suspicions of mistreatment should be reported was found to correlate with level of education and whether the hospice/palliative care professional had training in elder mistreatment.	Have all physicians received training in elder mistreatment? Have all team members received training in elder mistreatment?
Burgess et al. (2008)(34)	Review of the routes of reporting abuse	2 agencies have responsibility for investigating alleged cases - CJS and APS.	Does the practice have clear guidelines stating what should be reported and to whom?
Abbey et al. (2009)(8)	Review of provider role in abuse/neglect with case reports and discussion	Clinicians should know their state laws and community supports.	Have all physicians received training in their state laws and community supports?
Penhale et al. (2010)(23)	Review article on responding and intervening in elder abuse and neglect	Abide by the rules, regulations, laws, policies and procedures of the state. Practical support should be offered e.g. domiciliary support, legal, therapy.	Have team members received training in the state rules, regulations, laws, policies and procedures in relation to elder mistreatment? Has the practice access to practical support services e.g. counselling, legal advice?
Reeves et al. (2010)(30)	Review article on strategies to address financial abuse	Legal intervention, community responses via MDTs.	Does the practice have access to a multidisciplinary team experienced in investigating suspected elder mistreatment?
Allison et al. (2011)(32)	Case report of financial abuse	Once suspected, cases are best handled by an experienced geriatric led MDTs.	Does the practice (directly or through community partners) have access to a geriatric-led MDT experienced in elder

			mistreatment?
Phelan et al. (2012)(31)	Poster presentation summarizing a review of international best practices in addressing financial abuse of older people	Inter sectorial collaboration between health and social care services, policy, legislation and financial institutions.	Does the practice have access to an Inter sectorial collaboration between health and social care services, policy, legislation and financial institutions?
Vognar et al. (2012)(36)	Poster presentation on recognition and reporting of elder abuse	Education of all physicians, nurses, social workers and home healthcare staff in recognizing and reporting elder abuse.	Has all staff received education on recognizing and reporting elder mistreatment?
American College of Obstetrics and Gynecologists (2013)(7)	Committee opinion	Culturally sensitive educational materials should be available in health care facilities and community agencies. All health care professionals should be trained in the detection of abuse and the first steps in responding to abuse. Health care providers should become familiar with their individual state mandates regarding the reporting of abuse.	Have all health care professionals in the practice received training in the detection of abuse and the first steps in responding to abuse?
Dong et al. (2013)(18)	Invited lecture	IDTs should work collectively to ameliorate abusive situations and restore health and well-being. Indicators of possible elder abuse should lead to a report to APS or local police.	Have all cases of suspected abuse been reported to APS or local police? Does the practice have access to an IDT with training in elder mistreatment?
GREY LITERATURE			
Study	Study design	Relevant results	Candidate measures informed by the study
Toronto declaration on global prevention of elder abuse(38)	Toronto declaration on the global prevention of elder abuse	Education and dissemination of information are vital.	Does the practice have annual educational sessions around elder abuse?
National Library of Medicine Catalog (43)	Nursing facilities compliance with federal regulations for reporting	76% of nursing facilities had documentation supporting the facilities compliance with both federal regulations for reporting both allegations of abuse and investigation results.	Does the practice have documentation supporting the practices' compliance with federal regulations for reporting both allegations of abuse and investigations?

	allegations of abuse		
Bonnie et al. (2002)(1)	The National Academies review of elder mistreatment	Recommended Multi-Disciplinary Teams (MDTs) are composed of professionals and practitioners from health, law enforcement, social services and others as appropriate whose responsibility is to (1) analyze and collaborate on difficult cases and (2) give recommendations in response to problems unearthed.	Has all staff completed an elder mistreatment prevention program at least once? Does the practice have access to MDTs composed of professionals and practitioners from health, law enforcement, social services and others?
Hackbarth et al. (1989) (44)	Review of maltreatment of the elderly in the home with a specific section on guidelines for home health practices	Each practice should have a copy of or ready access to state laws governing elder abuse. Legal advice should be available to practitioners if needed. Each agency would benefit from a written protocol to guide personnel dealing with suspected or confirmed maltreatment. In-service education concerning the identification of and intervention in elder abuse and neglect needs to be part of the orientation of all persons providing care in the home.	Does the practice have a copy of or ready access to state laws governing elder abuse? Is legal advice available to practitioners if needed? Does the practice have a written protocol to guide personnel dealing with suspected or confirmed maltreatment? Is an in-service education concerning intervention in elder abuse and neglect part of the orientation of all persons in the practice who providing care in the home? Is there an ongoing education program for all persons in the practice who provide care in the home?
Action on Elder Abuse (2007) (45)	Prevalence study on Elder Abuse in the UK with action calls	Recommend a coordinated integrated approach e.g. legal, medical/social, education, empowerment.	Does the practice have access to a coordinated integrated approach to dealing with elder abuse?
Notes: ACEP: American College of Emergency Physicians; APS: Adult Protective Services; CJS: Criminal Justice System NICE:National Institute of Clinical Excellence MDT:Multidisciplinary IDT:Interdisciplinary team			

Table 2: Validity and feasibility scores for the patient measures and practice standards

	Validity	Feasibility
	Median	Median
	(MAD*)	(MAD*)
Patient-Level Quality Indicator		
Numerator: Number of cases of suspected elder mistreatment reported to Adult Protective Services or the Criminal Justice System in the last 12 months by home-based primary care and/or palliative care team.	7.0 (1.4)	7.0 (2.1)
Denominator: All enrolled home-based primary care and/or palliative care patients assessed for elder mistreatment in which elder mistreatment was suspected.		
Practice-Level Standards		
Does the home-based primary care and/or palliative care practice have written protocols and training on reporting suspected elder mistreatment? Yes/No	9.0 (0.4)	9.0 (0.4)
Does the home-based primary care or/and palliative care practice have written protocols and training on addressing suspected elder mistreatment? Yes/No	9.0 (0.6)	8.0 (0.6)
Does the home-based primary care and/or palliative care practice provide training on reporting suspected elder mistreatment? Yes/No	8.0 (0.4)	9.0 (0.4)
In the last 12 months has the home-based primary care and/or palliative care practice provided training on reporting suspected elder mistreatment? Yes/No	8.0 (2.0)	8.0 (1.2)
Do all providers and staff in the home-based primary care and/or palliative care practice receive training in the detection of abuse and the first steps in responding to abuse? Yes/No	4.0 (2.2)	5.0 (2.0)
Do all providers in the home-based primary care and/or palliative care practice receive training in the detection of abuse and the first steps in responding to abuse? Yes/No	8.0 (1.0)	8.0 (1.2)
Does the home-based primary care or/and palliative care practice have written protocols and training on addressing suspected elder mistreatment and reporting it as required? Yes/No	8.0 (0.6)	8.0 (0.6)
Does the home-based primary care or/and palliative care practice have written protocols and	9.0 (0.6)	8.0 (0.8)

provide training at orientation and on an annual basis on addressing suspected elder

mistreatment and reporting it as required? Yes/No

*MAD: Median Absolute deviation

Figure Legend:

Figure 1: Final pub med search

Figure 2: Flow diagram outlining results from peer-reviewed and grey literature search.

CINAHL = Cumulative Index to Nursing and Allied Health Literature

EMBASE = Excerpta Medica dataBASE

NLM = National Library of Medicine

Lit. = Literature

