Epidemiology of suspected elderly mistreatment in Singapore

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ABSTRACT

Introduction: In our Asian society, respect for our elderly is deeply entrenched and highly valued. However, a previous study had shown that physical mistreatment of the elderly exists in the local population. This present descriptive study aims to evaluate the other types of elderly mistreatment and epidemiology of suspected victims in the local population.

Methods: Over a period of 12 months, from June 2005 to May 2006, doctors of the Emergency Department (ED) were trained to look for clinical features of mistreatment in patients aged 65 years and above. A specially-developed evaluation form was used to help the staff in assessing suspected cases; these were then referred to medical social workers for further evaluation.

Results: 42 cases of suspected mistreatment were detected, with almost three times more female than male patients. The average age of suspected victims was 78.8 years. There were 27 cases of possible physical mistreatment, 25 of possible neglect, six of possible psychological mistreatment, two of possible financial mistreatment, one of possible abandonment and one of possible self-neglect. Most suspected perpetrators were family members, and more than half were the victims' sons. 37 suspected victims had to be warded after ED consultation and eight died within six months of presentation.

Conclusion: Mistreatment of the elderly in the local population is more prevalent than expected and victims can suffer adverse outcomes. Understanding of this problem is still incomplete and more research is required. Increased awareness of this problem in the community and the medical fraternity can better identify such patients.

Keywords: domestic violence, elder abuse, elderly mistreatment, geriatric problems, neglect

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INTRODUCTION

Singapore's population is ageing. In 2005, those aged 65 years and older consists of 8.3% of the population.[1] This is expected to increase to 20% in 2030. In recent years, we have been looking into public policies relating to issues such as financial security, affordable healthcare and the quality of life for the elderly. Yet as we recognise the need to improve the lives of our elderly citizens, we seem to have failed to put into place a system to identify and prevent the mistreatment of our senior citizens. In an Asian society where respect for the elderly is a sacred tradition, many find it difficult to imagine that the elderly can be mistreated. However, as Cham and Seow have shown, such mistreatment does occur in our society.[2] Mistreatment of the elderly refers to acts or omission of acts that result in harm or potential harm to the health or welfare of elderly persons,[3] and these occur within the context of a supposedly established relationship of trust and care. Report of mistreatment first appeared in the medical literature in 1975 when investigators reported incidents of "granny battery".[4] It is a difficult problem to study as there are no pathognomonic features, and the multiple comorbidities in the elderly can make detection difficult.[5]

The terminology of this problem has also been a subject of debate. In using the term, "elderly abuse", there is a connotation that a criminal act has occurred. However, in certain contexts, like unintentional neglect, there are often no criminalities involved and the perpetrators themselves can be co-victims. This is one of the reasons why some authors avoid the term "elderly abuse" and prefer more neutral terms like "elderly mistreatment", "elderly maltreatment" or "inadequate care of the elderly". Some authors also believe that interventions should be directed at improving the function and quality of life of the elderly rather than assigning blame. The authors of this paper agree with this and will be using the term "elderly mistreatment" in this study.

Different authors use different classifications for mistreatment of the elderly. The National Center of Elder Abuse, USA, has a comprehensive definition of seven categories of elderly mistreatment, which are accepted by most authors.[4,6-8] More than one type can occur to a victim. The seven categories are:

(1) Physical mistreatment: the use of physical force that may result in bodily injury, physical pain or impairment. This includes the inappropriate use of physical and chemical restraints.
(2) Sexual mistreatment: non-consensual sexual contact

Table I. Types of suspected mistreatment.

Suspected mistreatment	No. of victims*
Physical	27
Neglect	25
Psychological	6
Financial	2
Abandonment	1
Self-neglect	1
Sexual	0

*13 victims had more than one type of suspected mistreatment.

in any form, such as rape, molestation, photography and verbal innuendos.

(3) Emotional and psychological mistreatment: causing anguish, inflicting fear or distress by verbal or non-verbal acts.

(4) Neglect: failure or refusal to fulfill responsibilities, duties or care towards the elderly that are deemed necessary for his or her wellbeing. Such neglect can be intentional or unintentional.

(5) Abandonment: leaving the elderly person in a public area.

(6) Financial or material exploitation: illegal use of the elderly person's fund, property or asset.

(7) Self-neglect: this is the behaviour of an elderly person that threatens his or her own safety or health.

Research shows that the epidemiology and type of elderly mistreatments can be different in different countries. Very little is known about this problem in the local context. Cham and Seow published the only researched data in the local population in 2000. They conducted a self-reported survey of elderly patients (aged ≥ 65 years) from May 1994 to December 1997. They found 17 cases of physical forms of elderly mistreatment over this study period. The victims were commonly female, and the perpetrators usually their adult son or daughter-in-law.[2] In order to understand this problem further, we conducted this descriptive study in the same department as Cham and Seow, and applied an active detection method to look into the type and epidemiology of victims of suspected elderly mistreatment.

There is no one international gold standard to diagnose elderly mistreatment. However, several centres and investigators worldwide[7,9-12] have developed, and are using, their own criteria. These criteria have arisen from their own experiences and have been shaped by the cultural milieu where they practice. It had not been appropriate for any of these centres to fully adopt those used in other centres. In Singapore, we have yet to develop a standard to diagnose elderly mistreatment. In the absence of a gold standard for the diagnosis of elderly mistreatment, the authors for this study decided that the study population could only be diagnosed as victims of suspected elderly mistreatment, rather than victims of elderly mistreatment.

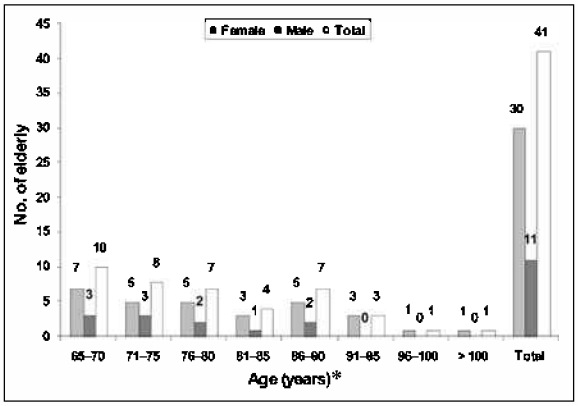

Fig. 1 Bar chart shows the age distribution and gender of suspected victims of elderly mistreatment.
*The age of one suspected male victim was not known

METHODS

Over a period of 12 months, from June 2005 to May 2006, doctors of the Emergency Department (ED) of Tan Tock Seng Hospital, Singapore, were trained to look out for signs and symptoms of mistreatment in all elderly patients who sought treatment there. As the ED had limited resources and the patient's length of stay in the ED was short, only signs and symptoms of physical mistreatment, sexual mistreatment, neglect and self-neglect were actively sought; the other three categories of elderly mistreatment were added after further evaluation of suspected victims by medical social workers (MSW). This ED has a major urban catchment area. During the study period, there were 139,516 attendances (an average of about 382 patients a day) of whom about 31,145 were aged 65 years or older. All patients, who was aged ≥ 65 years and who had clinical features suggestive of elderly mistreatment, was included in this study. The only exclusion criterion was age younger than 65 years.

Training lectures on elderly mistreatment were conducted by the authors to train all ED doctors involved. Posters and reminders were issued at regular intervals of three months during the study period to remind doctors to be aware of suspected elderly mistreatment when attending to elderly patients. In order to assist the doctors to recognise suspected elderly mistreatment, an evaluation tool (Appendix 1) was developed. During the development of the tool, the authors drew the material from other investigators, and adapted it to the local cultural milieu. Mobility function (bedbound, wheelchair-bound, walking aid or independent) and cognitive function (uncommunicative, non-verbal responses, confused or disorientated) of suspected victims were recorded by

Table II. Comparison of victims of suspected neglect and physical mistreatment.

	Neglect	Physical mistreatment
Mobility		
Independent	1	10
Walking aid	3	3
Wheelchair-bound	0	0
Bedbound	21	6
Care requirement		
None	1	7
Some	3	2
Maximal	13	1
Cognition		
Orientated	3	10
Confused	14	5
Uncommunicative	7	3
Ability to make informed decisions		
All decisions	2	7
Some decisions	4	0
None	10	3

Five victims had both suspected neglect and physical mistreatment; they have been counted as one in each category. Numbers do not add up to the total number of suspected victims as some patients have incomplete data sets.

the ED doctor. Numbers of non-verbal and confused responses were later combined together for data analysis and presentation.

Elderly patients who were suspected to be mistreated were then referred to MSWs who would conduct further interviews and investigations into the case and record the demographical data. Data, such as family tree, caregiver identity, characteristics of suspected victims (care requirement, decision-making ability, living and financial arrangements) and profile of the suspected perpetrator, were captured using a standard interview form. Additional forms of mistreatment deemed present by MSWs were also recorded. The country-wide electronic medical records of suspected victims were traced up to six months after their initial presentation to look for further hospitalisation or death. Univariate analyses between various factors were performed to identify possible association between presentation, signs, types of mistreatment, characteristics of suspected victims, profile of perpetrators, interventions and outcome. The Statistical Package for Social Sciences version 13 (SPSS Inc, IL, Chicago, USA) was used in the statistical analysis. Ethical approval was obtained from National Healthcare Group Domain Specific Review Board.

RESULTS

A total of 45 cases were identified by the ED doctors as victims of suspected elderly mistreatment, but of these, there were three cases that the MSWs did not deem so. These three cases were not included in the final analysis, thus only 42 cases were analysed. Of these 42 suspected cases, seven cases were lost to follow-up after ED consultation, and in another six cases MSWs were not able to reach the patients; therefore, certain data that was to be captured by MSWs were missing in these 13 cases.

The age of the suspected victims ranged from 65 to 107 years. Their average age was 78.8 years. Most of the suspected victims (80.9%) were older than 70 years of age. Only ten suspected victims were 70 years of age and below (Fig. 1). Of these suspected victims, 30 were female and 12 male. Suspected male victims were much younger in comparison to suspected female victims (average ages of males and females were respectively 76.1 years and 79.7 years, $p = 0.292$). There were 36 suspected Chinese victims (85.7%), three suspected Indian victims (7.1%), one suspected Malay victim (2.4%) and two suspected Eurasian victims (4.8%). The Malay population was under-represented in this study, given the fact that Malays constitute 13.8 percent of the Singapore population, according to the 2005 census.

The ED doctors' assessment coincided with the MSWs' assessment in 42 cases and differed in three. There were 25 cases of suspected neglect (seven deemed unintentional, and for the remaining 18, the intention was uncertain), 27 cases of suspected physical mistreatment, six cases of suspected psychological mistreatment, two cases of suspected financial mistreatment, one case of suspected abandonment, and one case of suspected self-neglect (an 80-year-old male divorcee living alone). In addition, 13 of them had more than one type of suspected mistreatment (Table I). There was no case of sexual mistreatment. Psychological mistreatment, financial mistreatment and self-neglect were additional diagnoses made by MSWs.

Victims, who were suspected of being neglected or physically mistreated, formed two distinct patterns. Suspected victims of neglect tend to present late by the ED doctor's assessment (OR 25.2, 95% CI 2.5–255.9, $p < 0.002$). At the same time, their profiles also differed from those who were suspected to be physically mistreated.

Table III. Presentations and signs of suspected mistreatment.

Indications	No. of victims*
Presentations	
Delay in presentation	20
Elderly reporting mistreatment	11
Indifference of caregiver	3
Disparity in history	1
Caregiver blaming elderly	1
Non-compliance of caregiver to treatment plan	1
Signs	
Decubitus ulceration	15
Other wounds including abrasions and burns	13
Dehydration	11
Malnutrition	11
Poor hygiene	9
Other injuries including fracture	3
Elderly appear fearful of caregiver	2

* Five suspected victims had more than one presentation/symptom of possible mistreatment. 14 suspected victims had more than one sign of possible mistreatment.

They were likely to be bedbound ($p < 0.001$) and required maximal care ($p = 0.002$). Their cognition was significantly impaired ($p = 0.001$) and they were unable to make informed decisions ($p = 0.013$) (Table II). They were also found to be financially dependent (OR 8.9, 95% CI 1.2–64.7, $p = 0.012$). Suspected victims of physical mistreatment were comparatively mobile and cognitively intact, compared to suspected victims of neglect ($p = 0.002$ and 0.060, respectively).

The most common presentation of suspected elderly mistreatment was delay in presentation after illness onset or injury (20 cases). Other presentations included elderly report of mistreatment (11 cases), indifference of caregivers (three cases), disparity of history (one case), caregiver blaming the elderly (one case) and non-compliance to treatment plan (one case). Five suspected victims had more than one presentation (Table III). Delays in presentation were significantly associated with suspected neglect (OR 25.2, 95% CI 2.5–255.9, $p = 0.002$) and decubitus ulcerations (bed sores) (OR 2.4, 95% CI 1.4–4.0, $p = 0.003$). Victims who had delayed presentation were significantly physically dependent ($p = 0.004$) and cognitively impaired, compared to those who presented without delay ($p = 0.001$). Elderly who suffered from suspected physical mistreatment were able to report their predicaments to their doctors, whereas elderly who were suspected of suffering from other forms of mistreatment were not able to do so (OR 7.0, 95% CI 1.4–36.3, $p = 0.023$).

In all, 15 suspected victims had decubitus ulceration, which was the most prevalent sign of mistreatment. Also, 13 cases had bruises and superficial wounds, 11 were dehydrated, 11 had malnutrition, 9 had poor hygiene, and three had other forms of injuries like fractures. There were two suspected victims that the doctor deemed fearful of their caregivers. 14 patients had more than one sign of mistreatment (Table III). As pointed out above, most of the patients were female, and most were above 70 years of age. Suspected victims who were mobile tended to be cognitively intact, required minimal care, were able to make independent decisions and suffered from possible physical forms of mistreatment. Suspected victims who were bedbound tended to be cognitively impaired, required maximal care, were unable to make independent decisions and suffered from possible neglect.

Six suspected victims were married, three were divorced or separated, and 16 were widowed. There was no statistical correlation between their marital status and the type of suspected mistreatment. 19 suspected victims lived with their families, four lived alone, three were from nursing homes and one lived with flatmates (Table IV). For those living with their families, the suspected perpetrators were all family members, except one who was an employed domestic help. For those from nursing homes, the suspected perpetrators were believed to be staff. Only one family reported suffering from crisis. The domestic helper in the family had to take care of two elderly, one of whom recently developed a change in the sleeping habit. In this case, signs of both neglect and physical form of mistreatment were found. In six cases, the family members of the suspected victims reported that these elderly victims displayed deviant behaviour, such as being overly demanding, spitting at them, being suspicious and critical. Of these six cases, four had signs of physical mistreatment, one showed signs of neglect and one had signs of both physical mistreatment and neglect.

Suspected victims who were financially dependent required more care ($p < 0.001$), and were less likely to be able make an informed decision ($p < 0.001$). Of the suspected perpetrators that were identified, 23 were

Table IV. Available data on living arrangement of 27 suspected victims.

Living arrangement	No. of victims
With family members	19
Alone	4
Nursing home	3
Flatmates	1

Table V. Characteristics of the 14 sons who were suspected perpetrators.

Characteristics	No.
Unmarried	10
Unemployed	6
Financially dependent on others	6
Psychiatric history	5
History of substance use	4
Part-time employment	2
Previous incarceration	2

Table VI. Mode of intervention used in 23 cases.

Intervention	No.
Mobilising community resources	8
Nursing home placement	8
Mobilising familial resources	5
Legal action	2

family members; i.e. 14 sons, four daughters, two children (not known if son or daughter) and three spouses. One suspected perpetrator was an employed domestic helper, two were flatmates and three were believed to be nursing home staff. The 14 sons who were suspected perpetrators were deemed responsible for ten cases of possible physical mistreatment and four cases of possible neglect. Ten were unmarried, six were unemployed, and two had part-time employment. Six were financially dependent, two had previously been in jail, four had history of substance abuse, and five had previous psychiatric problems (Table V).

Four suspected victims were discharged and 37 suspected victims were warded after initial ED consultation. One had arrived in a critical condition and died soon after. Four suspected victims were re-admitted within six months of initial presentation. Eight victims of suspected neglect died within six months of initial presentation. The interventions made by MSWs included nursing home placement, mobilisation of community or familial resources and the use of legal services. Nursing home placements were initiated in eight cases. Community resources (like meals on wheels, home volunteer programmes, homecare teams, etc.) were mobilised for another eight cases. Family resources of five suspected victims were mobilised. In two cases, legal recourse was obtained; in both cases, the suspected victims were independent, cognitively-intact and had suffered from possible physical mistreatment (Table VI).

DISCUSSION

Ideally, in such a study, every elderly person who comes into the ED should be surveyed and investigated by a trained team of doctors and social workers specialising in elderly mistreatment. Assessments should be done with a locally-validated instrument, including investigative assessments in the community. Such an ideal scenario with a specialist team of assessors does not exist in most studies, and such an investigative approach was not possible in this study where almost 400 patients per day were seen during the study period. The authors decided that the most practical way to detect suspected victims of elderly mistreatment in this study environment would be to educate the doctors on the problem so as to increase their awareness of it, and to apply an evaluation instrument that was specially developed for the local environment. We recognised that some cases of suspected elderly mistreatment may not have been detected.

The incidence of suspected mistreatment was much higher than that previously reported by Cham and Seow, who had detected 17 victims over a period of three and half years, whereas this study had identified 42 suspected cases in one year. However, Cham and Seow had looked only at self-reported cases of physical mistreatment, whereas this study had actively sought four forms of possible elderly mistreatment. Nevertheless, comparing just the category of physical mistreatment alone, Cham and Seow identified 17 cases over three and half years vs. this study which detected 27 possible cases over a year. This substantiates the point made by other authors in the past that sole reliance on self-reporting of mistreatment by the elderly, would cause about 70%–90% of mistreatment cases to be missed.[4,13] Active detection is required for a higher sensitivity in the detection of elderly mistreatment.

This ED saw 31,145 elderly patients over the study period; the incidence of suspected elderly mistreatment detected over this period was 0.13%. The true incidence and prevalence of elderly mistreatment in the community were probably higher, if the other excluded categories of mistreatment, the cases that were missed by ED or MSWs as well as the victims who did not present to the healthcare establishments, were taken into account. The true incidence and prevalence may never be known in the local population; however, authors in other countries have estimated that up to 10%–20% of the elderly in the community suffer from some form of elderly mistreatment.[6,14] We suspect this could also be true of this society.

Neglect in this study context is defined as the failure or refusal to fulfill responsibilities, duties or care that are deemed necessary for the wellbeing of the elderly. Intentional neglect occurs when caregivers knowingly withhold care; unintentional neglect occurs when the neglect is due to ignorance or limited resources. Although there is an absence of intent in the latter form, the effect and outcome for the victims can be just as bad as for the victims of intentional neglect. Seven victims in this study were suspected of being victims of unintentional neglect and they present with large festering decubitus ulceration, severe dehydration and untreated sepsis. All of the patients who died within six months of presentation had been suspected of being victims of neglect. We believe that unintentional neglect can be prevented with good education on care and some investment from the family or community. This intervention is likely to lessen the incidence of neglect and patient care may improve substantially. This is likely to lead to a decrease in the consumption of hospital resources. There may also be a decrease in morbidity and mortality.

This study showed that suspected victims tend to be female (71.4%), and tend to be older (80.9% are older than 70 years of age). This finding is similar to previous studies.[15,16] The profile of suspected perpetrators was also similar to what was previously reported.[15] The suspected perpetrators in 22 cases were family members; 14 (63.6%) of familial perpetrators were sons, and among these 14 cases, there were common problems like unemployment, financial dependency, psychiatric problems and substance abuse. These suggest that the origins of this problem may be related to the characteristics and nature of the victims and perpetrators. This knowledge, i.e. characteristics of patients and family members, may allow us to identify the victims earlier. It had been shown that elderly who were dependent and cognitively-impaired tend to become victims of mistreatment.[17] However, in this study, it was found that such patients were mainly victims of suspected neglect, and elderly who were independent and cognitively-intact tend to be victims of suspected physical mistreatment. Data from a larger sample may help to clarify this in our local population. If this disparity in the suspected victim profile is found to be true, it may allow clinicians to predict the type of mistreatment that the elderly may be subjected to when mistreatment is suspected.

In Cham and Seow's study, there were 15 Chinese victims (88.2%), two Indian victims (11.8%) but no Malay victims. In this present study, Chinese victims made up 85.7%, Indian victims 7.1%, and there was only one Malay victim in this study population. This problem seems to be very uncommon in the Malay community. Over the study period, Malay patients made up 12.1% of the ED attendance, corresponding to the percentage of Malays in the general population. One of the reasons for the under-representation of Malays in both studies may be because the Malays tend to live together in extended family units. Extended families are likely to have more available resources, such as manpower and finances, to care for their elderly. Further studies are recommended to confirm this finding.

Almost a fifth of the suspected victims eventually required nursing home placement. However, some investigators believe that the problem of elderly mistreatment is serious and widespread in nursing homes.[18] In this study, three suspected victims from nursing homes were identified: one suffered from possible neglect, one from possible physical mistreatment and one suffered both possible neglect and physical mistreatment. Nursing home care is also associated with other problems like malnutrition and dehydration.[19] Further studies will be needed to assess if nursing home placements are an effective intervention in cases of elderly mistreatment.

Ten suspected victims died within six months after initial presentation; all of them were victims of possible neglect. These constituted almost one quarter of all suspected victims. Victims of elderly mistreatment had been shown to have a mortality rate 3.1 times higher than the general geriatric population.[20] There may be a few reasons why there is a high mortality rate among victims. Mistreatment itself predisposes victims to poor care and nutrition. Medical conditions are also poorly managed and illnesses are left untreated. However, another possible explanation may be that the victims may have presented late or were detected late in the course of their problems. We hope that further studies can give us some answers to this, but looking at the alarming mortality figure, there is an urgency to better understand and manage this problem.

In this ED, the average patient and doctor contact time rarely exceeds 20–30 minutes. However, we were able to train the doctors to detect signs of possible elderly mistreatment in that short span of time. An instrument was also put in place to help doctors rapidly identify possible elderly mistreatment. Our experience showed that although elderly mistreatment is difficult to detect, it is possible to put in place mechanisms to identify and help suspected victims. Medical associations like the American Medical Association, the American College of Emergency Medicine, and various investigators recommend that medical departments that come into contact with the elderly put in place protocols to detect and screen the elderly routinely for elderly mistreatment.[7,9,10,21]

Cham and Seow concluded that "the doctor is faced

with the challenge to recognise, manage and report these cases". The experience in this present study is similar. Elderly mistreatment is poorly understood in the local context. To date, no large scale community study has been carried out. It is not taught in the medical or nursing school curriculum nor in any basic or advance postgraduate training. The awareness and knowledge of medical staff about this problem are lacking or non-existent. Even when the condition is recognised, medical staff are not equipped with the training and skills to handle suspected victims and perpetrators. As the population ages, there will be an increasing stress on the resources that are required to take care of the elderly and the problem of mistreatment can worsen. We recommend that concerted efforts be made to educate and train our healthcare professionals to recognise and manage this problem of elderly mistreatment. This problem also requires further study.

This study was limited by the inherent difficulty of detecting this condition. The standardised form used had not been evaluated nor validated, and some cases of elderly mistreatment might have been missed. Nevertheless, until there is a better understanding of the problem, this was probably the best and most practical way to conduct this study. We also recognised the need for a gold standard in diagnosing elderly mistreatment. Such expertise is lacking in the local context, and until this becomes available, many of the cases of elderly mistreatment can only be assigned as suspected cases. This study was also limited by the difficulties in collecting some of the data. Family members and suspected victims were at times reticent or vague about the information. There were no resources to conduct community or home investigations. MSWs were not able to assess some of the suspected victims that were identified, and in such cases, some epidemiological data were missing.

In conclusion, elderly mistreatment is difficult to detect and manage, but it can be dealt with if the right system and training are put in place. However, both research and education in this area are still lacking. The medical community needs to study this problem further. Members of the medical community which come into contact with the elderly need to be trained on how to detect, manage and prevent elderly mistreatment. We have to be comfortable and willing to talk to our elderly patients about mistreatment. As healthcare providers, we may be the only external agent that isolated and desperate victims ever come into contact with. We are, therefore, well placed to manage and prevent it.

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REFERENCES

1. MOH Health Facts, Singapore 2006. In: Division HIMI, Ministry of Health Singapore, 2006.
2. Cham GW, Seow E. The pattern of elderly abuse presenting to an emergency department. Singapore Med J 2000; 41:571-4.
3. Jones JS. Elder abuse and neglect: responding to a national problem. Ann Emerg Med 1994; 23:845-8.
4. Kleinschmidt KC. Elder abuse: a review. Ann Emerg Med 1997; 30:463-72.
5. Lachs MS, Pillemer K. Abuse and neglect of elderly persons. N Engl J Med 1995; 332:437-43.
6. Krouse LH. Elder Abuse. eMedicine [online]. Available at: www.emedicine.com/emerg. Accessed November 22, 2004.
7. Recognition and Management of Elder Abuse. American College of Emergency Physician, 1999.
8. Clarke ME, Pierson W. Management of elder abuse in the emergency department. Emerg Med Clin North Am 1999; 17:631-44, vi.
9. Jones J, Dougherty J, Schelble D, Cunningham W. Emergency department protocol for the diagnosis and evaluation of geriatric abuse. Ann Emerg Med 1988; 17:1006-15.
10. Aravanis SC, Adelman RD, Breckman R, et al. Diagnostic and treatment guidelines on elder abuse and neglect. Arch Fam Med 1993; 2:371-88.
11. Kahan FS, Paris BB. Why elder abuse continues to elude the health care system. Mt Sinai J Med 2003; 70:62-8.
12. Fulmer T, Paveza G, Abraham I, Fairchild S. Elder neglect assessment in the emergency department. J Emerg Nurs 2000; 26:436-43.
13. Fulmer T, Guadagno L, Bitondo Dyer C, Connolly MT. Progress in elder abuse screening and assessment instruments. J Am Geriatr Soc 2004; 52:297-304.
14. Podnieks E PK, Nicholson JP, Shillington T, Frizzel A. National survey on abuse of the elderly in Canada: Final report. Toronto: Ryerson Polytechnical Institute, 1990.
15. The National Elder Abuse Incidence Study. Washington DC: National Center on Elder Abuse, 1998.
16. Fulmer T, McMahon DJ, Baer-Hines M, Forget B. Abuse, neglect, abandonment, violence, and exploitation: an analysis of all elderly patients seen in one emergency department during a six-month period. J Emerg Nurs 1992; 18:505-10.
17. Lachs MS, Williams C, O'Brien S, Hurst L, Horwitz R. Risk factors for reported elder abuse and neglect: a nine-year observational cohort study. Gerontologist 1997; 37:469-74.
18. Yap LK, Au SY, Ang YH, et al. Who are the residents of a nursing home in Singapore? Singapore Med J 2003; 44:65-73.
19. Hawes C. Elder abuse in residential long-term care facilities: what is known about prevalence, causes, and prevention. [online]. Available at: finance.senate.gov/hearings/testimony/061802chtest.pdf. Accessed November 22, 2004.
20. Lachs MS, Williams CS, O'Brien S, Pillemer KA, Charlson ME. The mortality of elder mistreatment. JAMA 1998; 280:428-32.
21. Management of elder abuse and neglect. American College of Emergency Physicians. Ann Emerg Med 1998; 31:149-50.

APPENDIX I

1. ADMINISTRATIVE

Inclusion:

All elderly aged 65 years or older. Including family, community or nursing home dwellers. Including elderly presenting with acute emergencies requiring resuscitative or critical care.

B. QUESTIONS (You can leave this blank if unable to ask)

➢ Has anyone ever hurt you at home? ☐ Yes ☐ No ☐ Unable to answer

➢ Are there problems with care at home? ☐ Yes ☐ No ☐ Unable to answer

(Needs: Physical, nursing, medical and financial)

2. SCREENING

Maltreatment ☐ Yes ☐ Suspected

SUSPICIOUS PRESENTATION ☐ Yes ☐ No ☐ Not sure

☐ Delay between injury/illness and seeking medical attention.

☐ Presentation of functionally-impaired patient without caregiver (it is usual for nursing home resident to come without caregiver).

☐ Unwillingness/reluctance of caregivers in complying in planning for care or implementation.

☐ Indifference/anger/absence of assistance of caregivers towards the elderly.

☐ Past history of elderly mistreatment.

SUSPICIOUS HISTORY ☐ Yes ☐ No ☐ Not sure

☐ The elderly's report of being mistreated in any way.

☐ Disparity of histories from the elderly and abuser.

☐ Unexplained injuries or explanation that are inconsistent with physical findings.

☐ Caregiver blaming the elderly.

☐ Caregiver's aggressive or abusive behaviour towards the elderly.

☐ Caregiver refusing to be interviewed separately from the elderly.

SUSPICIOUS PHYSICAL FINDINGS ☐ Yes ☐ No ☐ Not sure

Behavioural	☐ Fearful of caregiver
General appearance	☐ Unexplained dehydration ☐ Unexplained malnutrition ☐ Poor personal hygiene ☐ Urine burns or excoriation ☐ Absence of/broken spectacles, hearing aids or prosthesis
Skin and mucous membrane	☐ Untreated bed sores ☐ Untreated injuries in various stages of healing ☐ Rope marks and signs of being restrained ☐ Unusual/unexplained bruises, resembling pattern/objects, of different age ☐ Unusual/unexplained and/or multiple wounds, cuts and/or puncture ☐ Unusual/unexplained burns e.g. immersion burns
Head and neck	☐ Traumatic alopecia ☐ Unexplained scalp haematoma
Musculoskeletal	☐ Unusual/unexplained injuries
Genitourinary	☐ Torn, stained or bloody under clothing ☐ Pain, itch, bruising or bleeding in the anal or genital region ☐ Unexplained sexually transmitted illness

Please tick off relevant reason. Your reason may not be in the table; if so, please specify: _____

_____

3. DECISIONS

A. TYPE OF POSSIBLE MISTREATMENT (More than one is possible)

☐ Physical mistreatment ☐ Sexual mistreatment

☐ Neglect ☐ Abandonment

☐ Others – please specify : _____

B. POSSIBLE PERPETRATOR (Ask the elderly or other source if possible, or leave blank)

➢ Perpetrator's relation to the elderly : _____
➢ Source of information (relationship and name) : _____
☐ Suspicious only ☐ Confirm (perpetrator admits to mistreatment)

C. DISPOSITION

☐ **Admitted**
- Ward _____
- Diagnosis _____

☐ **Discharged**
- To whom / to where (e.g. own home) : _____
- F/U? ☐SOC ☐ OPD
- Contact Number 1: _____ - Contact Number 2: _____
- Refer MSWs
☐ Yes ☐ No –Provide reason _____

If referral made – a photocopy of this form will help MSWs' assessment.

If elderly refuses –give them these numbers to call if they change their mind later – MSWs xxxxxxx

4. ADL ASSESSMENT

A. Mobility ☐ Independent ☐ Walking aids (stick, quad stick, frame) ☐ Wheelchair-bound ☐ Bedbound

B. Cognitive state ☐ Orientated ☐ Confused ☐ Some non-verbal responses ☐ Totally uncommunicative