

201115015B

厚生労働科学研究費補助金
長寿科学総合研究事業

災害時高齢者医療の初期対応と救急搬送基準に関する
ガイドライン作成に関する研究

平成22年度～平成23年度 総合研究報告書

研究代表者 森本 茂人
(金沢医科大学)

平成24(2012)年3月

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目 次

I. 総合研究報告書

災害時高齢者医療の初期対応と救急搬送基準に関する ガイドライン作成に関する研究	1
--------------------------------------------------	---

金沢医科大学 高齢医学部門 教授・森本 茂人

II. 研究班構成	5
-----------------	---

III. 研究成果の刊行に関する一覧表	7
---------------------------	---

IV. 研究成果の刊行物・別刷り	9
------------------------	---

V. 全国都道府県・市町村・都道府県医師会配布ガイドライン

災害時高齢者医療の初期対応と 救急搬送基準に関するガイドライン	(1～328)
------------------------------------------	---------

一般救護者用 災害時高齢者医療マニュアル	(1～ 25)
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I. 総合研究報告書

厚生労働科学研究費補助金（長寿科学総合研究事業）
総合研究報告書

災害時高齢者医療の初期対応と救急搬送基準に関する
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研究代表者 森本 茂人
金沢医科大学 高齢医学部門 教授

研究要旨：被災者の大多数は高齢者であり、災害の急性期、亜急性期から慢性期にかけて避難所・仮設住宅で高齢者において疾患が多発し、死亡が多いことが知られている。本研究班においては、高齢者の心身の機能低下の評価を考慮し、高齢者特有の症状発現、予後展開をも念頭にいった東日本大震災発生直後に「高齢者災害時医療ガイドライン」および「一般救護者用災害時高齢者医療マニュアル」を日本老年医学会ホームページに掲載した。また「一般救護者用災害時高齢者医療マニュアル」については冊子体として、日本老年医学会会員が所属する病院からの救護班および各都道府県の日本医師会 JMAT を通じて被災各県の避難所に約 2 万分を配布し、被災高齢者の慢性疾患の増悪予防、災害関連死の低減を期した。また両冊子を全国の 47 都道府県および 1,742 市町村、47 都道府県医師会および日本医師会本部に郵送した。またこれらの活動内容を海外に発信した。

研究分担者

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A. 研究目的

昨今、我が国においては地震が多発し、さらには台風、大雨などによる土砂災害が毎年のように繰り返されている。我が国における災害被災者の

大多数は高齢者である。これら災害発生時の初期態勢は、各自治体で、自主防災組織の結成、障害者・高齢者など災害弱者に対する災害超急性期の避難誘導、救護所・避難所の組織運営など体制作りが進んでいる。しかし、災害の急性期、亜急性期から慢性期にかけて避難所・仮設住宅で被災者として圧倒的に多数である高齢者において疾患が多発し、死亡が多いことが知られているにもかかわらず、災害時の高齢者疾病発症時に対する初期医療対応と救急搬送基準は策定されていない。世界最長寿国であり災害が多発する我が国において、災害時の高齢者疾患に対する対応医療ガイドラインの整備は、我が国の医療の安全・安心に不可欠である。一方、災害時の高齢者に発症する疾患は、症状が非定型的であること、我慢強く症状の訴えが少ないこと、容易にせん妄、意識障害などの精神症状を来しやすいこと、疾病の帰結と認知症、うつ、日常生活動作能低下などの障害が

相互に密接に関係しそれぞれに応じた対応が必要となるなど、高齢医学特有の専門性が必要とされる。被災した高齢者が直面する看護上の問題点と支援については報告されているが、被災高齢者の疾病発症時の対応ガイドラインは皆無である。本研究においては、「災害時高齢者医療の初期対応と救急搬送基準に関するガイドライン」の提起を目的とし、災害の超急性期、急性期、亜急性期、慢性期の経時的に高齢者に起こりうる、1) 災害発生時の経時的に高齢者に起こりうる医療需要予測・評価、2) 急性期疾患発症と初期対応、搬送基準、3) 慢性期疾患発症と対応、搬送基準、4) 主要症候と初期対応法、5) 自治体の初期対応と福祉避難所設営、6) 自治体他の医薬品、医療機材の備蓄、7) 高齢者家屋の防災処置、8) 過去の災害における高齢者医療出動に関するガイドラインを、医療スタッフ向けに、および疾病予防を中心に一般救護者向けに、策定する。

B. 研究方法

ガイドライン原案は1) 国内・国外における災害時の高齢者の疾病発症の実態把握、2) 災害時の高齢者に多い急性期疾患の特長と初期対応の要点、3) 急性期疾患への早期対応のためのチーム医療、4) 個々の老年症候群（認知症、うつ、日常生活動作能低下、易転倒性、口腔機能障害）を有する高齢者急性期疾患の救急搬送基準、5) 要介護高齢者の域外高齢者施設への搬送基準、6) 高齢者の急性期疾患発症後の予後と QOL などの章を有する。さらには、この原案に対する高齢医療、救急医療の専門家の意見を収集し、最終稿として提案される。本ガイドラインの策定は、被災高齢者の急性期疾患の早期対応、早期搬送が可能となり、高齢者に対する安心・安全の災害医療体制構築に寄与すると考えられ、高齢者が常に抱えている災害時医療への不安に対するセーフティネットとして作用するものであり、世界的にも先進的な高齢者災害医療の指針となるとともに、高

齢者と同じように精神的・身体的能力低下を示す障害者、難病患者、精神疾患患者など災害弱者への現場で医療・福祉サービスにおける活用が可能である。

(倫理面への配慮)

これらガイドライン策定における調査は「疫学研究に関する倫理指針」「臨床研究に関する倫理指針」を遵守して行なわれた。

C. 研究結果

平成 23 年 3 月 11 日に東日本大震災が発生し、被災した高齢者における医療現場の厳しい現状における高齢者医療・介護に資すべく、急遽「高齢者災害時医療ガイドライン」および「一般救護者用災害時高齢者医療マニュアル」として平成 23 年 3 月 22 日に日本老年医学会ホームページに掲載した。また「一般救護者用災害時高齢者医療マニュアル」については冊子体として、日本老年医学会会員が所属する病院からの救護班および各都道府県の日本医師会 JMAT を通じて被災各県の避難所に約 2 万分を配布し、被災高齢者の慢性疾患の増悪予防、災害関連死の低減を期した(NHK で紹介)。

1. 全国初の災害時高齢者医療の包括的実態調査の実施

本研究では阪神淡路大震災(1995年)、新潟県中越地震(2004年)、能登半島地震(2007年)、海外エビデンスとしては米国 Hurricane Katrina (2005年)を取り上げ、被災高齢者において疾病発症・死亡に関する実態を網羅的かつ経時的(災害の超急性期、急性期、亜急性期、慢性期)に明らかにした。高齢者では病態や背景となる高齢者の精神的(うつ、認知症)・身体的能力(日常生活動作能)低下によっても選択すべき初期対応や搬送の判断が異なる。本ガイドラインの作成のために行った高齢者災害医療の実態の把握は、今後の災害時に高齢者に起こりうる疾病に対する初期対応、救急搬送の貴重な調査資料となった。

2. 高齢者に対する安心・安全の災害時医療体制の構築

人口高齢化が世界で最も進行し、災害が多発する我が国での高齢者に対する災害医療体制の構築を目指す本ガイドライン作成により、被災高齢者の急性期疾患の早期対応、早期搬送が可能となり、高齢者が常に抱えている災害時の懸念に対するセーフティーネットとして効果をもたらすものであり、高齢者に対する安心・安全の災害医療体制構築に寄与すると考えられ、世界的にも先進的な高齢者災害医療の指針となった。

3. 災害弱者に対する災害時医療・福祉サービス提供の充実

本ガイドライン作成により、高齢者と同じように精神的・身体的能力低下を示す障害者、難病患者、精神疾患患者など災害弱者への現場で医療・福祉サービスにおける活用が可能であり、災害弱者の急性期疾患発症後の予後のみならず QOL の向上が期待される。

4. ホームページに掲載

平成 23 年 3 月 11 日大震災に呼応し、平成 23 年 3 月 11 日より日本老年医学会と共同でホームページ (<http://www.jpn-geriat-soc.or.jp/>) に「一般救護者用・災害時高齢者医療マニュアル」(全 25 頁) および「高齢者災害時医療ガイドライン」(全 336 頁) を掲載し、今回の大震災の被災者に対し、必要な情報を提供した。

5. 被災各県避難所に冊子配布

「一般救護者用災害時高齢者医療マニュアル」(全 25 頁) については、冊子体として 2 万部印刷し、日本老年医学会会員の所属する病院の救護班、あるいは各県日本医師会からの JMA T 救護班を経由し、東北各県の被災地避難所へ配布した。

6. 海外への情報発信

さらにこれらの活動やガイドライン内容を米国老年医学会雑誌 (、および日本老年医学会英文雑誌 に英文で報告し、海外に情報発信した。

7. 全国市町村、都道府県医師会にガイドライン

を配布

「一般救護者用・災害時高齢者医療マニュアル」および「高齢者災害時医療ガイドライン」を、全国の 47 都道府県および 1,742 市町村、47 都道府県医師会および日本医師会本部に郵送した。

D. 考察

今後、特に東日本大震災での現在進行形の被災高齢者の医療・介護情報をも取り入れ、福祉避難所の在り方、福祉避難所でのトリアージ、高齢者の避難所・仮設住宅における介護予防など、災害時の高齢者医療・介護出動の在り方を盤石なものにしていく必要がある。

E. 結論

「一般救護者用・災害時高齢者医療マニュアル」および「高齢者災害時医療ガイドライン」を通して、災害時の高齢者医療の在り方につき、規範を示しえたと考える。

F. 健康危険情報

なし

G. 研究発表

1. 論文発表

- 1) Iijima K, Shimokado K, Takahashi T, Morimoto S, Ouchi Y & Members of JGS Disaster Supportive Center. Actions of the Japan Geriatric Society in response to the 2011 off the Pacific Coast of Tohoku Earthquake: first report. GGI. 11:525-526, 2011
- 2) Morimoto S, Iijima K, Kuzuya M, Hattori H, Yokono K, Takahashi T. Guidelines for Non-Medical Care Providers to Detect Illnesses in Elderly Evacuees After the 2011 Earthquake Off the Pacific Coast of Tohoku. JAGS. 59:2189-2191, 2011
- 3) Takahashi T, Iijima K, Kuzuya M, Hattori H,

Yokono K, Morimoto S. Guidelines for non-medical care providers to manage the first steps of emergency triage of elderly evacuees. GGI. 11:383-394, 2011

- 4) 森本茂人, 班員他. : 災害時高齢者医療の初期対応と救急搬送基準に関するガイドライン. 一般救護者用 災害時高齢者医療マニュアル. 災害時高齢者医療の初期対応と救急搬送基準に関するガイドライン. 当該研究班および日本老年医学会. 1-328,1-25, 2012

2. 学会発表

- 1) 森本茂人 : 特別セッション : 災害時のチーム医療
災害時のチーム医療 : 高齢者を中心に. 第 54 回日本糖尿病学会年次学術集会, 札幌, 2011,5
- 2) 森本茂人, 班員他 パネルディスカッション : 高齢者災害時医療～非難所からいかに高齢者を守るか～. 第 53 回日本老年医学会学術集会, 東京, 2011,6
- 3) 森本茂人, 班員他 パネルディスカッション : 災害時の高齢者対策—長寿科学総合研究事業「災害時高齢者医療の初期対応と救急搬送基準に関するガイドライン作成」研究班成果発表講演会—. 第 17 回日本集団災害医学会総会・学術集会, 金沢, 2012,2

H. 知的財産権の出願・登録状況（予定を含む。）

1. 特許取得

なし

2. 実用新案登録

なし

3. その他

なし

II. 研究班構成

研究班構成

区 分	氏 名	所 属 等
研究代表者	森本 茂人	金沢医科大学高齢医学
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Ⅲ. 研究成果の刊行に関する一覧表

書籍

著者氏名	論文タイトル名	書籍全体の編集者	書籍名	出版社名	出版地	出版年	ページ
森本茂人 和藤幸弘 高橋 孝 飯島勝矢 横野浩一 葛谷雅文 服部英幸 中橋 毅 久藤 茂	・高齢者災害時 医療ガイドラ イン ・一般救護者用 災害時高齢者 医療マニユア ル	森本茂人	災害時高齢者医療の 初期対応と救急搬送 に関するガイドライ ン	当該研究班 および日本 老年医学会		2012	1-328 1-25

雑誌

発表者氏名	論文タイトル名	発表誌名	巻号	ページ	出版年
Iijima K, Shimokado K, Takahashi T, <u>Morimoto</u> <u>S</u> , Ouchi Y & Members of JGS Disaster Supportive Center	Actions of the Japan Geriatric Society in response to the 2011 off the Pacific Coast of Tohoku Earthquake: first report	GGI	11	525-526	2011
<u>Morimoto S</u> , Iijima K, Kuzuya M, Hattori H, Yokono K, Takahashi T	Guidelines for Non-Medical Care Providers to Detect Illnesses in Elderly Evacuees After the 2011 Earthquake Off the Pacific Coast of Tohoku	JAGS	59	2189-2191	2011
Takahashi T, Iijima K, Kuzuya M, Hattori H, Yokono K, <u>Morimoto S</u>	Guidelines for non-medical care providers to manage the first steps of emergency triage of elderly evacuees	GGI	11	383-394	2011

IV. 研究成果の刊行物・別刷り

LETTER TO THE EDITOR

Actions of the Japan Geriatric Society in response to the 2011 off the Pacific Coast of Tohoku Earthquake: First report

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Dear Editor,

A huge earthquake occurred in Japan on March 11, 2011 at 2:46 PM (Japanese standard time). The Japan Meteorological Agency officially announced that this earthquake was named the “Off the Pacific Coast of Tohoku Earthquake” and had a magnitude of 9.0. This disaster presented several unique characteristics compared to previous earthquakes in Japan, including the great Hanshin-Awaji earthquake, because it brought about a large tsunami, resulting in exceptional damage in the northeast-east areas of Japan and destruction of many coastal cities.¹ According to the report by the National Police Agency of Japan, 15 413 people died as of June 11, approximately 90% of them drowned. In addition, the huge tsunami disaster took an unexpected turn, with 8069 persons still missing. This terrible disaster shows the uniqueness of this earthquake. Approximately 470 000 people had to be evacuated to shelters as a result of unavoidable circumstances at the peak (on 14th March), and around 100 000 people are still living in shelters. In addition, the huge tsunami unexpectedly resulted, not only in widespread destruction of communities, but also in nuclear power plant accidents in Fukushima, leading to the collapse of daily life of many residents.

The Japan Geriatric Society (JGS) immediately formed the Disaster Supportive Center on 18th March 2011 and took several steps to deal with this huge disaster. First, the JGS grappled with the issue of geriatric medicine in the disaster, in cooperation with the Study Group of the “Guidelines Regarding the First Steps and Emergency Triage to Manage Elderly Evacuees”. In the case of elderly victims, even after their safe evacuation to a refuge, it is possible that they may suffer from

disaster-related illnesses, including the deterioration of pre-existing illnesses, cerebro-cardiovascular disease, infectious disease, and mental stress. In general, these disaster-related illnesses are induced by numerous factors, such as psychological distress, dehydration, and sympathetic nerve hyperactivation, and can lead to fatal and non-fatal conditions. Simultaneously with establishing the guidelines, the Study Group and JGS also made a manual for non-medical care providers (NMCP; e.g. public health nurses and certified social workers). The aim of this simple manual was to help NMCP and/or the families of the elderly to quickly identify illnesses in elderly evacuees. The booklets were distributed to a widespread stricken area, mainly Iwate, Miyagi, and Fukushima prefectures, by JGS members and Japan Medical Association Teams in each prefecture. Therefore, our mission in the JGS, using both the guidelines and the manual, was to extend life-saving medical help to as many elderly evacuees as possible via the reduction of susceptibility to disaster-related illnesses and death.

Next, the JGS Supportive Center immediately decided to dispatch a medical support team to a refuge in Soma City, Fukushima, as well as visit Ishinomaki and Higashi-Matsushima, Miyagi, to investigate the damage situation for elderly victims. In addition, the JGS also sent a support team of physicians to Mitsuke, Niigata, which shares a border with Fukushima prefecture. Mitsuke City, with 42 500 residents, accommodated around 500 refugees in three shelters. Most of the refugees were from Minami-Soma City where it had been recommended that people evacuate because of the nuclear power plant accidents. Since Mitsuke City itself has been struck by natural disasters twice in the last 10 years, but had no damage from the earthquake this time, the quality of support to refugees here was quite

different from that in the center of the area struck by the earthquake and tsunami (Abe Y *et al.*, unpubl. data. manuscript in preparation).

Now, beyond the chronic phase, elderly evacuees are being gradually shifted from shelters to temporary housing. However, it is possible that they may have serious new problems, they might lose stimulation from the outside world and become miserable (e.g. survival guilt and nightmares). These emotional changes may lead to a decline in cognitive function and disused muscle atrophy of their extremities while in temporary housing. Another goal of JGS is to prevent a decline in the cognitive and functional abilities of the elderly in the long term through multidisciplinary support. The JGS needs to carry out a longitudinal investigation to clearly address the psychological distress and somatic symptoms in elderly victims based on posttraumatic emotional stress with

exposure to disastrous conditions. In addition, the development of a national disaster plan for mental health in the elderly may also be required.

Acknowledgement

The activities of the JGS and Study Group were funded in part by a Grant-in-Aid for Scientific Research from the Ministry of Health, Labor, and Welfare of Japan (H22-003, to Dr S. Morimoto). The JGS Disaster Supportive Center consists of Ouchi Y, Shimokado K, Ito H, Oba K, Iwamoto T, Akishita M, Kozaki K, Eto M, and Iijima K.

Reference

- 1 Shibahara S. The 2011 Tohoku earthquake and devastating tsunami. *Tohoku J Exp Med* 2011; **223**: 305–307.

TUG groups. The difference in SPMT score at the second follow-up lost significance after additionally controlling for the baseline value.

DISCUSSION

This study found that the gait speed and mobility were associated with global cognitive function after 3 years and were cross-sectionally associated with executive and memory functions. The results could suggest that slowing of mobility can be observed before decline in global function and coinciding with impairment in executive and memory functions in people aged 80 and older. These findings based on octogenarians and nonagenarians in Okinawa, Japan, known for their longevity, give additional generalizability to previous findings.^{2,10} This association has potentially important implications for early detection of cognitive impairment in older people.

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ACKNOWLEDGMENTS

We would like to express our sincere appreciation to Ms. Takiko Hokama, Ms. Satsuki Ishikawa, Ms. Masayo Iha, and Mr. Daisuke Higa, who acted as study coordinators. This study would not have been possible without the cooperation and support of the municipalities, public officials, families, and most importantly, the participants. We thank Dr. Jeffrey Kaye for his valuable input.

Conflict of Interest: This study was supported by the National Institute on Aging (K01AG023014, P30 AG008017, P30 AG024978) (Dodge), Linus Pauling Institute Research Grant, Oregon State University Center for Healthy Aging pilot grant (Dodge), and Japanese Ministry of Education, Culture, Sports, Science and Technology Grant-in-Aid for Young Scientists (B) (20790442) (Katsumata).

Author Contributions: The authors are fully responsible for the study concept and design, methods, analysis, interpretation, and manuscript preparation.

Sponsor's Role: None.

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COMMENTS/RESPONSES

GUIDELINES FOR NON-MEDICAL CARE PROVIDERS TO DETECT ILLNESSES IN ELDERLY EVACUEES AFTER THE 2011 EARTHQUAKE OFF THE PACIFIC COAST OF TOHOKU

To the Editor: On March 11, 2011, at 2:46 p.m. (JST), a strong earthquake occurred off the Pacific coast of Japan and hit the northeast part of the country. Devastating tsunamis followed that destroyed many coastal cities.¹ The magnitude of this quake according to the Japan Meteorological Agency was Mj9.0. A huge number of aftershocks continued after the quake, even now (May 6, 2011). According to the report by the National Police Agency of Japan, as of May 6, 2011, 14,841 people had died in this disaster, and 10,063 were still missing.² In addition, 109,086 homes were completely or partially destroyed, and 3,970 roads were disrupted.² As shown in Figure 1A, 119,967 displaced people (peak number approximately 470,000 on March 14, 2011) were still living in shelters supplied by the government as of May 6, 2011, because of disruption of community utility services and health risks of nuclear power plant accidents in Fukushima.^{2,3} In particular, 37,482, 35,923, and 25,501 persons took refuge in the 357, 403, and 157 evacuation centers located in Iwate, Miyagi, and Fukushima prefectures, respectively.²

Drs. Shigeto Morimoto and Takashi Takahashi reported an outbreak of norovirus gastroenteritis in elderly evacuees after the 2007 Noto Peninsula earthquake in Japan.⁴ There were 74 evacuees, including 61 elderly persons, in the shelter where the outbreak occurred.⁴ Thirty-one evacuees with gastroenteritis, 29 of whom were aged 65 and older (mean age 76 ± 7), were examined and treated.⁴ This experience suggests that elderly victims are more susceptible to disaster-related illnesses (i.e., infectious diseases, exacerbation of underlying illnesses, and mental stress) and disaster-related death. Therefore, a plan to establish guidelines to detect illnesses and perform triage rapidly in elderly evacuees was necessary. In April 2010, the six authors of the

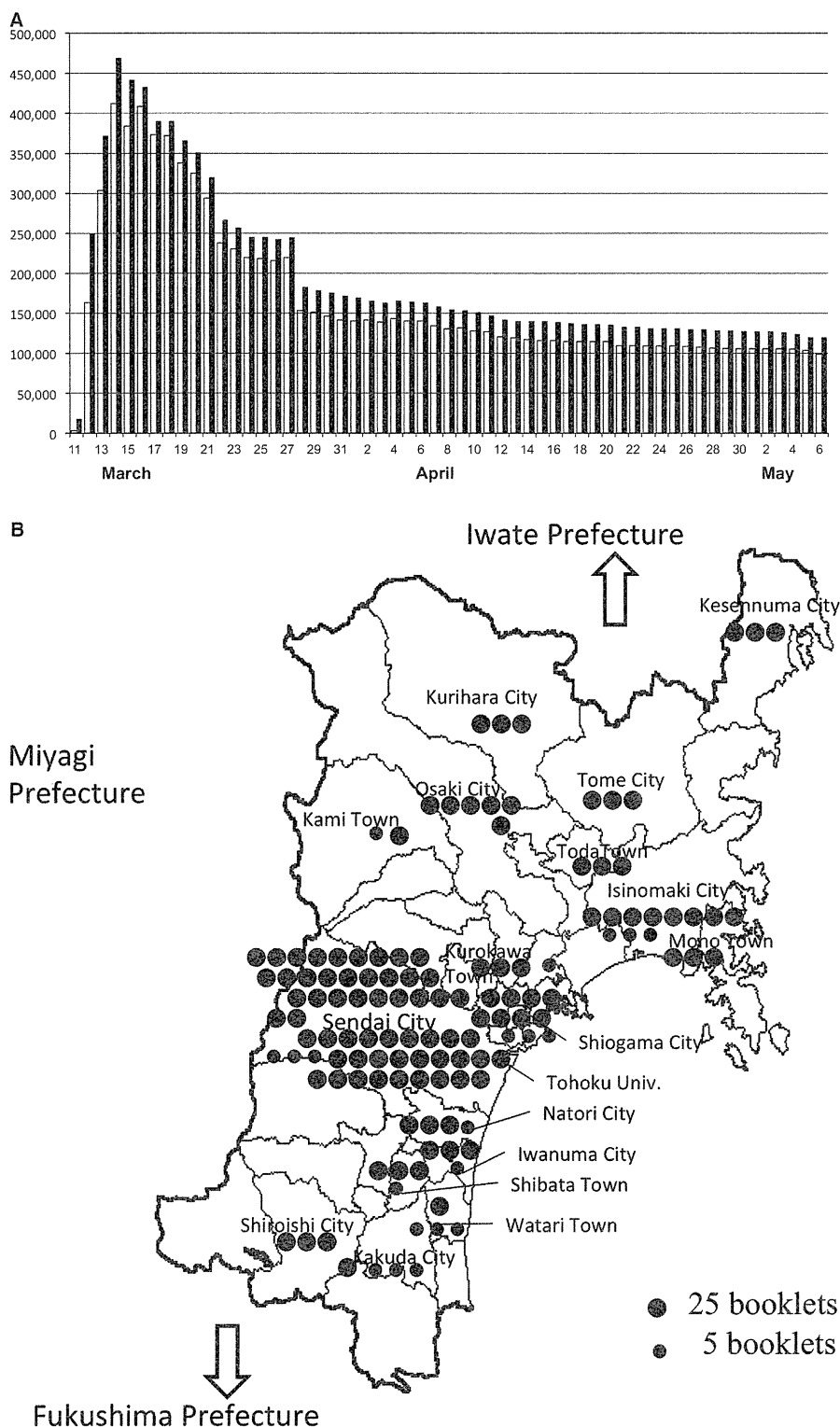


Figure 1. (A) Variations in number of evacuees from March 11 to May 6. Black and white bars denote total number of evacuees in Japan and number of persons still evacuated in Iwate, Miyagi, and Fukushima prefectures, respectively. (B) Distribution of guideline booklets to detect illnesses in elderly evacuees in Miyagi prefecture. These were distributed in the largest city, Sendai, where most people in this prefecture were living. Large and small closed circles indicate 25 and 5 booklets, respectively.

current letter formed the Study Group of “Guidelines Regarding the First Steps and Emergency Triage to Manage Elderly Evacuees” under a grant-in-aid for scientific research from the Ministry of Health, Labour, and Welfare of Japan.

Two types of guidelines were established: one for medical care providers (MCPs) and the other for non-MCPs (NMCPs, e.g., public health nurses and certified social workers). The guidelines for NMCPs seemed to be more effective

than those for MCPs, because there were limited MCP resources. The guidelines had three chapters: features of critical illnesses and prevention, acute symptoms, and chronic symptoms in elderly evacuees. For NMCPs to be able to understand the contents easily, it was written concisely.

One week after the 2011 earthquake off the Pacific coast of Tohoku, the guideline booklets were sent through members of the Japan Geriatrics Society (JGS) or the Japan Medical Association Team (JMAT) to NMCPs working in Iwate, Miyagi, and Fukushima. JGS and JMAT members were dispatched to these areas to care for evacuees. NMCP staff used the booklets to detect illnesses rapidly in elderly evacuees in shelters or homes. For example, the booklets were distributed in the largest city, Sendai, where most people in Miyagi were living (Figure 1B). The aim was to reduce morbidity and mortality from disaster-related illnesses in elderly evacuees. An investigation of the differences in morbidity and mortality between areas where the guidelines were and were not applied is planned.

The Japanese people had already experienced another strong quake, the Great Hanshin earthquake, which caused serious damage in the Kobe area on January 17, 1995. This disaster also hit the elderly population of an urban society particularly hard. More than half of the deaths were in those aged 60 and older, and in this age group, female mortality was almost double that of men.⁵ Surviving older adults were largely left to their own devices and were marginalized in shelters. Elderly evacuees tended not to complain about their problems, so their suffering tended to be underestimated,⁵ and it is therefore important for NMCPs to detect medical conditions quickly in elderly evacuees.

The situation of the recent disaster is different from that of the Great Hanshin quake in terms of the presence of tsunamis and nuclear power plant accidents. The recent quake's epicenter was located beneath the sea and caused huge tsunamis, whereas the Hanshin quake's epicenter was under the land and did not cause tsunamis. Most of the deaths were a result of the tsunamis this time, whereas the victims of the Hanshin quake were related to structure collapses and fires. Moreover, the recent evacuees in Fukushima are at short- and long-term health risks from the nuclear power plant accidents.³ Therefore, a survey of the morbidity and mortality from disaster-related illnesses in elderly evacuees in Iwate, Miyagi, and Fukushima is needed.

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Acknowledgments

The authors thank Drs. Yukihiro Watoh, Takeshi Nakahashi, Shigeru Kudoh, Masashi Okuro, Yasuyoshi Ouchi (JGS president); Mr. Hiroto Minamide; Ms. Takako Ichihara; and Ms. Kaori Nakamura for their helpful assistance.

Conflict of Interest: None of the authors has any financial disclosure to report. This work and Dr. Morimoto were supported by research funding for comprehensive research on aging and health (H22-003) from the Ministry of Health, Labour, and Welfare of Japan.

Author Contributions: Shigeto Morimoto and Takashi Takahashi: Study concept and design. Masafumi Kuzuya, Hideyuki Hattori, and Koichi Yokono: Acquisition of data. Katsuya Iijima and Shigeto Morimoto: Analysis and interpretation of the data. Takashi Takahashi and Shigeto Morimoto: Preparation of the letter.

Sponsor's Role: The sponsors had no role in this letter.

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GAIT VELOCITY VERSUS THE TIMED UP AND GO TEST: WHICH ONE TO USE FOR THE PREDICTION OF FALLS AND OTHER ADVERSE HEALTH OUTCOMES IN PRIMARY CARE?

To the Editor: We read with great interest the recent article by Viccaro and colleagues in which they evaluated the predictive ability of the Timed Up and Go Test (TUG test) and gait velocity (GV) for falls and other adverse health outcomes.¹ Gait velocity predicted most geriatric outcomes, as did the TUG, and GV took less time to complete and demonstrated better prediction in individuals with intermediate (TUG = 12–15 seconds, GV = 0.6–1.0 m/s) and slow test performance (TUG < 12 seconds, GV < 0.6 m/s).

An important consideration when applying mobility measures across the spectrum of older people is the level



COMMISSION REPORT

Guidelines for non-medical care providers to manage the first steps of emergency triage of elderly evacuees

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On 11 March 2011, a strong earthquake occurred off of Japan's Pacific coast and hit northeastern Japan. The earthquake was followed by huge tsunamis, which destroyed many coastal cities. As a result, the Study Group on Guidelines for the First Steps and Emergency Triage to Manage Elderly Evacuees quickly established guidelines enabling non-medical care providers (e.g. volunteer, helpers, and family members taking care of elderly relatives), public health nurses, or certified social workers to rapidly detect illnesses in elderly evacuees, and 20 000 booklets were distributed to care providers in Iwate, Miyagi, and Fukushima prefectures. The aim of this publication is to reduce susceptibility to disaster-related illnesses (i.e. infectious diseases, exacerbation of underlying illnesses, and mental stress) and deaths in elderly evacuees. *Geriatr Gerontol Int* 2011; 11: 383–394.

Keywords: earthquake, elderly evacuee, emergency triage, guidelines, non-medical care provider.

Background

Japanese people have already experienced a variety of natural disasters including earthquakes,¹ typhoons,² tsunamis,³ and others. It is very important to manage

the medical care of elderly evacuees in the wake of disasters because: (i) elderly subjects (especially those needing to live in shelters) may suffer excessive mental and/or physical stress under the altered environment; and (ii) it is difficult to maintain medical management of chronic illnesses (e.g. hypertension, diabetes mellitus, cerebrovascular or cardiac disease) when care has already been started at local medical institutions. It was reported that acute risk factors possibly triggered cardiovascular events in hypertensive elderly patients after the Hanshin-Awaji earthquake.⁴ Increased incidence of transient left ventricular apical ballooning (takotsubo cardiomyopathy) was also described after the Mid Niigata Prefecture Earthquake of 2004.⁵

In April 2010, the Study Group on "Guidelines for the First Steps and Emergency Triage to Manage Elderly

Accepted for publication 23 August 2011.

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Authors' contributions: Shigeto Morimoto and Takashi Takahashi contributed to the study concept and design. Masafumi Kuzuya, Hideyuki Hattori, and Koichi Yokono performed acquisition of data. Katsuya Iijima and Shigeto Morimoto analyzed and interpreted the data. Takashi Takahashi and Shigeto Morimoto prepared the manuscript.

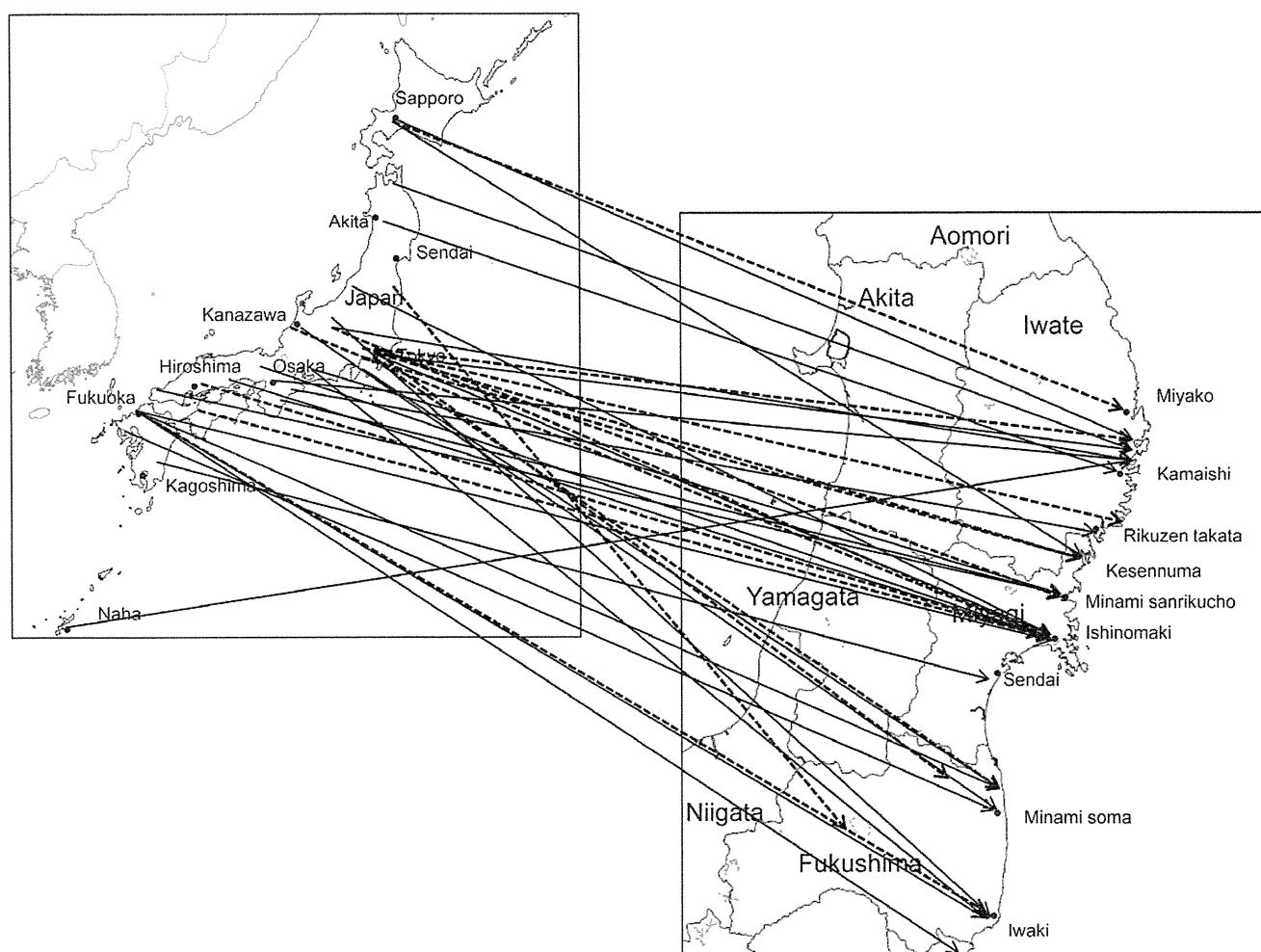


Figure 1 One week after the 2011 Tohoku earthquake, 20 000 booklets for non-medical care providers were distributed by members of the Japan Geriatrics Society (dotted lines) and Japan Medical Association Team (straight lines), to evacuation centers located in Iwate, Miyagi, and Fukushima prefectures.

Evacuees” was formed, with funding from Japan’s Ministry of Health, Labour and Welfare, to conduct comprehensive research on aging and health. The study group aimed to complete and revise the guidelines based on external reviews by expert medical doctors by March 2012.

By collaborating with the Japan Geriatrics Society after the 2011 earthquake off the Pacific coast of Tohoku, we have quickly published two tentative guidelines to manage elderly evacuees: one for medical care providers and another for non-medical care providers (NMCP), including volunteer, helpers, and family members who are taking care of the elderly, public health nurses (PHN), or certified social workers (CSW). A total of 20 000 guideline booklets have been distributed by members of the Japan Geriatrics Society and the Japan Medical Association Team to NMCP, PHN, or CSW working in Iwate, Miyagi, and

Fukushima prefectures (Fig. 1). The Japan Medical Association Team’s mission is to provide medical assistance at hospitals or clinics in disaster-affected areas and to provide ongoing medical treatment that was started before the disaster.⁶

Preface

The guidelines for NMCP, PHN, and CSW have three chapters: (i) Features and prevention of critical diseases in elderly in evacuation areas; (ii) Signs of acute diseases in elderly; and (iii) Symptoms of anxiety in elderly in shelters. Ideally, NMCP, PHN, or CSW will use the booklets to rapidly detect illnesses in the elderly in shelters or homes. NMCP, PHN, or CSW should immediately inform attending medical staff when those with the signs or symptoms are detected.