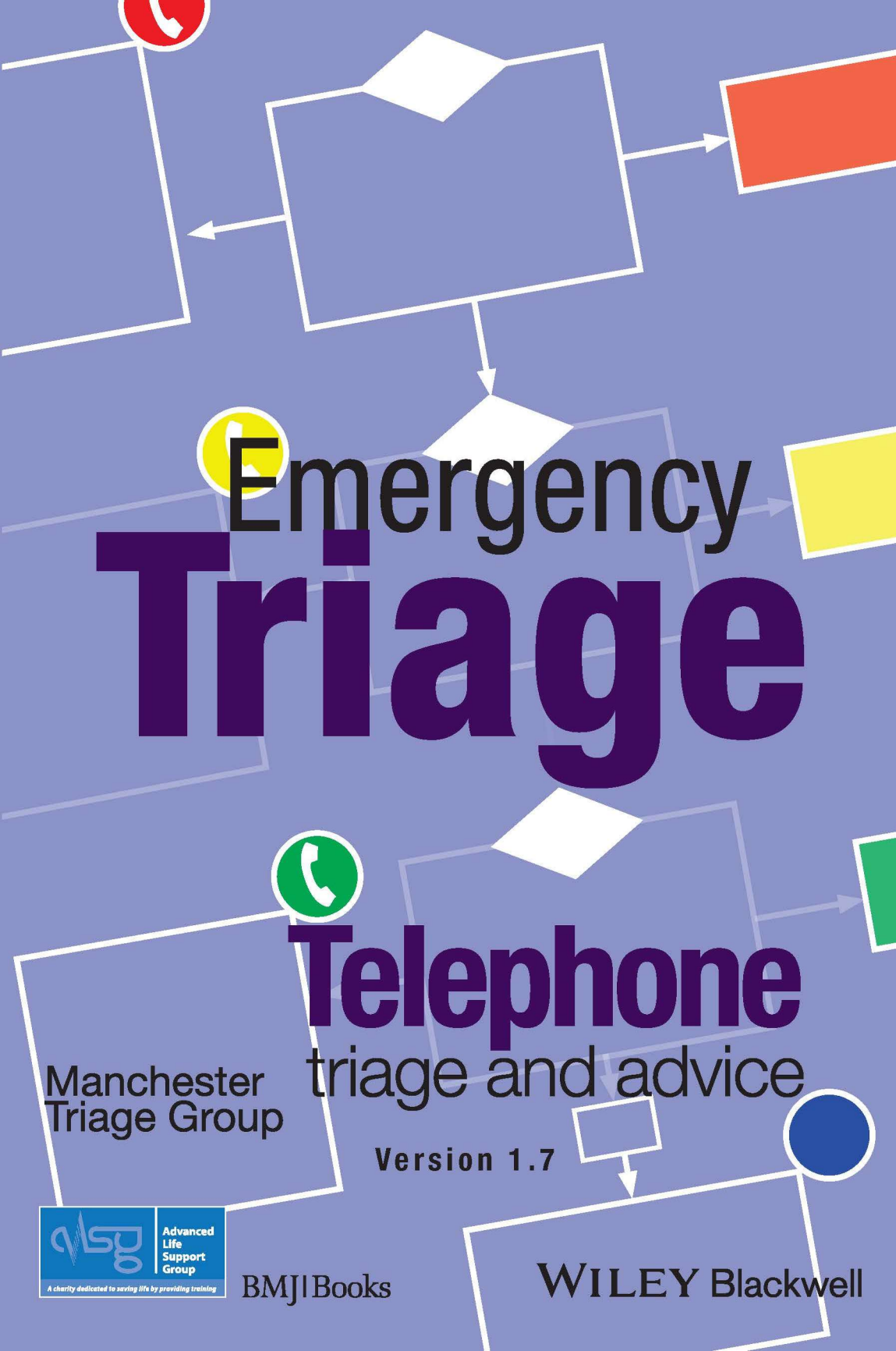
Emergency
Triage
Telephone
triage and advice
Manchester
Triage Group
Version 1.7
Advanced
Life
Support
Group
A charity dedicated to saving life by providing training
BMJ Books
WILEY Blackwell

Emergency Triage

Telephone triage and advice

Emergency Triage

Telephone triage and advice

Manchester Triage Group

EDITED BY

Janet Marsden

Mark Newton

Jill Windle

Kevin Mackway-Jones

FIRST EDITION

(VERSION 1.7)

BMJ Books

WILEY Blackwell

Advanced Life Support Group

A charity dedicated to saving life by providing training

This edition first published 2016 © 2016 by John Wiley & Sons, Ltd. This version updated 2023 (Version 1.7)

Registered Office
John Wiley & Sons, Ltd, The Atrium, Southern Gate, Chichester, West Sussex, PO19 8SQ, UK

Editorial Offices
9600 Garsington Road, Oxford, OX4 2DQ, UK
1606 Golden Aspen Drive, Suites 103 and 104, Ames, Iowa 50010, USA

For details of our global editorial offices, for customer services and for information about how to apply for permission to reuse the copyright material in this book please see our website at www.wiley.com/wiley-blackwell

Library of Congress Cataloging-in-Publication Data

Emergency triage (Manchester Triage Group)
Emergency triage : telephone triage and advice / Manchester Triage Group ; edited by Janet Marsden, Mark Newton, Jill Windle, Kevin Mackway-Jones. – First edition.
p. ; cm.
Includes index.
ISBN 978-1-118-36938-8 (pbk.)
I. Marsden, Janet, editor. II. Newton, Mark, 1963– , editor. III. Windle, Jill, editor. IV. Mackway-Jones, Kevin, editor. V. Manchester Triage Group, issuing body. VI. Title.
[DNLM: 1. Triage–methods. 2. Emergency Service, Hospital. 3. Telephone. WX 215]
RA975.5.E5
362.18–dc23

2015007951

A catalogue record for this book is available from the British Library.

Wiley also publishes its books in a variety of electronic formats. Some content that appears in print may not be available in electronic books.

Set in 9/12pt Meridien by SPi Global, Pondicherry, India

1 2016

Contents

Editors

Janet Marsden, Professor of Ophthalmology and Emergency Care, Director – Centre for Effective Emergency Care, Manchester Metropolitan University.

Mark Newton Head of Service/Consultant Paramedic responsible for Urgent Care. North West Ambulance Service NHS Trust

Jill Windle, Lecturer Practitioner in Emergency Nursing, Salford Royal Hospitals NHS Foundation Trust and University of Salford.

Kevin Mackway-Jones, Consultant Emergency Physician – the Manchester Royal Infirmary and the Royal Manchester Children's Hospital, Medical Director – North West Ambulance Service, Honorary Civilian Consultant Advisor in Emergency Medicine to the British Army, Professor of Emergency Medicine – Centre for Effective Emergency Care, Manchester Metropolitan University.

Acknowledgements

The editors would like to thank all those in the North West Ambulance Service who have contributed their time and expertise to this project and in particular to Stephanie Allmark and Stephen Scholes whose contribution and support remains absolutely invaluable.

Members of the Original Manchester Triage Group

Kassim Ali, Consultant in Emergency Medicine

Simon Brown, Senior Emergency Nurse

Helen Fiveash, Senior Emergency Nurse

Julie Flaherty, Senior Paediatric Emergency Nurse

Stephanie Gibson, Senior Emergency Nurse

Chris Lloyd, Senior Emergency Nurse

Kevin Mackway-Jones, Consultant in Emergency Medicine

Sue McLaughlin, Senior Paediatric Emergency Nurse

Janet Marsden, Senior Ophthalmic Emergency Nurse

Rosemary Morton, Consultant in Emergency Medicine

Karen Orry, Senior Emergency Nurse

Barbara Phillips, Consultant in Paediatric Emergency Medicine

Phil Randall, Consultant in Emergency Medicine

Joanne Royle, Senior Emergency Nurse

Brendan Ryan, Consultant in Emergency Medicine

Ian Sammy, Consultant in Emergency Medicine

Steve Southworth, Consultant in Emergency Medicine

Debbie Stevenson, Senior Emergency Nurse

Claire Summers, Consultant in Emergency Medicine

Jill Windle, Lecturer and Practitioner in Emergency Nursing

International Reference Group

Austria
Stefan Kovacevic
Andreas Lueger
Willibald Pateter

Brazil
Welfane Cordeiro
Maria do Carmos Rausch
Bárbara Torres

Germany
Joerg Krey
Heinzpeter Moecke
Peter Niebuhr

Mexico
Alfredo Tanaka Chavez
Elizabeth Hernandez Delgadillo
Noe Arellano Hernandez

Norway
Grethe Doelbakken
Endre Sandvik
Germar Schneider

Portugal
Paulo Freitas
Antonio Marques
Angela Valenca

Spain
Gabriel Redondo Torres
Juan Carlos Medina Álvarez
Gema García Riestra

Preface

It is now 20 years since a group of senior emergency physicians and emergency nurses first met to consider solutions to the muddle that was triage in Manchester, UK. We had no expectation that the solution to our local problems would be robust enough (and timely enough) to become the triage solution for the whole United Kingdom. Never in our wildest dreams did we imagine that the Manchester Triage System (MTS) would be generic enough to be adopted around the world. Much to our surprise, however, both of these fantastic ideas came about, and the MTS continues to be used in many languages to triage tens of millions of Emergency Department attenders each year.

Clinical decisions made by telephone have always been an area of concern for clinicians because not only is the patient not present and it may be difficult to obtain correct information but many of the tools and indicators that we use for decision making are simply not available. It is therefore an inherently more risky process than face-to-face triage.

Quite early on in the implementation of MTS in Manchester, departments began to use a simplified version as a structure for telephone conversations. This was superseded by national algorithm-based telephone helplines and its use in the Emergency Department diminished.

Our colleagues in the Greater Manchester Ambulance Service (GMAS) felt that there was a gap in their resources for undertaking telephone decision making. We have discussed ways of developing tools based on the MTS, with its significant evidence base and good safety record which would embed safety and quality into their telephone decision systems.

A huge amount of work has been done by the now North West Ambulance Service (NWAS) along with MTS to test and audit a robust Telephone Triage tool. It has also been piloted in diverse settings, with ambulance services in the Azores and New Zealand, as well as other services in the United Kingdom using it for the whole or part of their day to day work. It has been tested and refined and has a superb audit trail and safety record associated with it.

The basic principles that drive the MTS (recognition of the presentation and reductive discriminator identification) are unchanging – but changes have been made to reflect the difficulties of assessment by telephone. The outcomes of decisions are condensed into ‘face-to-face now’, ‘face-to-face soon’ and ‘face-to-face later’ with a self-care outcome. Information and advice is suggested alongside

every outcome. The advice ranges from life-saving interventions which can be carried out until health care arrives, to self-care advice.

We recognise the diversity of health care settings and the need for appropriate information and advice; therefore, the information and advice sections of the Telephone Triage tool can be customised by the user to reflect different health economies while retaining the core which is MTS.

Clinical prioritisation (whether called triage or anything else) remains a central plank of clinical risk management in all emergency care settings. This telephone iteration of a triage system which prioritises millions of patients each year provides a robust, safe, evidence-based system for managing the risk inherent in patients who are at a distance from health care providers.

Janet Marsden, Mark Newton, Jill Windle, Kevin Mackway-Jones
January 2015

CHAPTER 1
Introduction

Triage is a system of clinical risk management employed in Emergency Departments worldwide to manage patient flow safely when clinical need exceeds capacity. Systems are intended to ensure care is defined according to patient need and in a timely manner. Early Emergency Department triage was intuitive rather than methodological and was therefore neither reproducible between practitioners nor auditable.

The Manchester Triage Group was set up in November 1994 with the aim of establishing consensus amongst senior emergency physicians and emergency nurses about triage standards. It soon became apparent that the Group's aims could be set out under five headings.

1. Development of common nomenclature
2. Development of common definitions
3. Development of robust triage methodology
4. Development of training package
5. Development of audit guide for triage

Nomenclature and definitions

A review of the triage nomenclature and definitions that were in use at the time revealed considerable differences. A representative sample of these is summarised in Table 1.1.

Despite this enormous variation, it was also apparent that there were a number of common themes running through the different triage systems; these are highlighted in Table 1.2.

Emergency Triage: Telephone triage and advice, First Edition. Updated version 1.7, 2023.
Edited by Janet Marsden, Mark Newton, Jill Windle and Kevin Mackway-Jones.

Table 1.1

Hospital 1		Hospital 2		Hospital 3		Hospital 4	
Red	0	A	0	Immediate	0	1	0
Amber	<15	B	<10	Urgent	5–10	2	<10
		C	<60	Semi-urgent	30–60		
Green	<120	D	<120				
Blue	<240	E	—	Delay acceptable	—	3	—
		FGHI					

Table 1.2

Priority	Maximum times (minutes)			
1	0	0	0	0
2	<15	<10	5–10	<10
3		<60	30–60	
4	120	<120		
5	<240	—	—	—

Table 1.3

Number	Name	Colour	Maximum time (minutes)
1	Immediate	Red	0
2	Very urgent	Orange	10
3	Urgent	Yellow	60
4	Standard	Green	120
5	Non-urgent	Blue	240

Once the common themes of triage had been highlighted, it became possible to quickly agree on a new common nomenclature and definition system. Each of the new categories was given a number, a colour and a name and was defined in terms of ideal maximum time to first contact with the treating clinician. At meetings between representatives of Emergency Nursing and Emergency Medicine nationally, this work informed the derivation of the United Kingdom triage scale as shown in Table 1.3.

As practice has developed over the past 20 years, five-part triage scales have been established around the world. The target times themselves are locally set, being influenced by politics as much as medicine, particularly at lower priorities, but the concept of varying clinical priority remains current.

The development of Telephone Triage

After a period where all Emergency Departments in the Manchester area were using 'Manchester Triage' and using it on the telephone to triage callers to the ED (prior to NHS Direct), it became apparent that although all Emergency Department staff were using the same language of triage, the interface with paramedic colleagues still faced a language barrier. Key collaborators within the ambulance service recognised that applications of the Manchester Triage method would be extremely useful within the ambulance service and a further group of clinicians across acute care settings and the ambulance service was set up to explore this. Telephone Triage emerged as one of the products of this collaboration and had been used successfully for both secondary triage (since 2006) and latterly primary triage (2012) of those patients accessing care by telephoning ambulance services in a number of ambulance services across the United Kingdom and internationally.

Triage methodology

In general terms, a triage method can try and provide the practitioner with the diagnosis, disposal or clinical priority. 'Manchester Triage' is designed to allocate a clinical priority. This decision was based on three major tenets. First, the aim of the triage encounter is to aid clinical management of the individual patient, and this is best achieved by accurate allocation of a clinical priority. Second, the length of the triage encounter is such that any attempts to accurately diagnose a patient are doomed to fail. Third, it is apparent that diagnosis is not accurately linked to clinical priority. The latter reflects a number of aspects of the particular patient's presentation as well as the diagnosis; for example patients with a final diagnosis of ankle sprain may present with severe or no pain and their clinical priority must reflect this. In Telephone Triage, the allocation of this clinical priority is inherently linked to a place of definitive clinical care, and in the highest priority, a mode of emergency transport to this care.

In outline, the triage method put forward in this book requires practitioners to select from a range of presentations and then to seek a limited number of signs and symptoms at each level of clinical priority. The signs and symptoms that discriminate between the clinical priorities are termed *discriminators* and they are set out in the form of flow charts for each presentation – the *presentational flow charts*. Discriminators that indicate higher levels of priority are sought first, and to a large degree, patients who are allocated to the standard clinical priority are selected by default. In this way, it reflects the effective face to face triage methodology taught by the Manchester Triage Group. The clinical priority is inherently linked to a disposal: where does the patient obtain the definitive care which they require and what is the timescale within which this must be obtained for optimum