



**Ambulance Service
of New South Wales**

CARE

Clinical Assessment and Referral Program

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Ambulance overview

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One of the world's largest Ambulances Services, staffed by 3,370 clinicians looking after more than 6.89 million people across 802,000 sq km.

Average of 3,056 ambulance responses per day
A call for assistance every 28 seconds

Introduction

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The nature of ambulance practice is changing:

- > The population is aging with chronic conditions more prevalent
- > More callers with non- or sub- acute health care needs
- > Ambulance demand is increasing
- > Variable access to after hours GP services
- > EDs and hospital wards experiencing increased demand
- > Expectations regarding the role of ambulance are changing
- > Extended and expanded roles for ambulance are well established internationally

- > Ambulance have a non-transport rate = 20-25%
(only non-transport option was patient refuse/ decline)
- > In NSW ambulance patients not transported = ~14,000 per month
- > Ambulance training has been disproportionately weighted towards acute cases (10-15% of caseload)
- > Minimal education or training in how to safely manage non-transports
- > Non-transports potentially pose significant clinical risk
- > Adverse events associated with non-transports

Clinical Assessment and Referral (CARE) Program Extended Care Paramedic (ECP) Program

(Commenced Dec 2007)

Objective: To meet the needs of patients seeking urgent unscheduled care who do not need to go to an ED and improve choices for patients



- > To provide appropriate patients with clinical care options other than transport to an ED
- > To increase patient & paramedic safety in non-transport situations
- > To contribute to sustainable access strategies aimed at decreasing ED congestion
- > To manage increasing demand for ambulance resources
- > To increase the availability of frontline emergency resources

- > CARE is a broad intervention across the Ambulance workforce
- > Paramedics receive three days of CARE training
- > Provides a structured system for assessment of patients against evidence based criteria
- > Provides non-transport alternatives to low risk patients (self-care, recommendation for care, immediate referral)
- > The application of a set range of clinical pathways that enhance safety and provide non-ED management options to low risk patients

- > Epileptic Post-ictal
- > Minor wounds
- > Diabetic hypos
- > Mild asthma
- > Epistaxis
- > Tooth pain
- > Soft tissue limb injuries
- > Elderly at Risk
- > Minor Bites and Stings
- > Minor Head Injury
- > OC spray
- > Vomiting and Diarrhoea
- > Palliative Care
- > Uninjured Patient



- > Non-ED referral is only utilised for conditions identified within the CARE program for which a clinical pathway has been established
- > Provides paramedics with a safe and systematic approach to the management of non-transport situations
- > Allows identification of medium and high risk patients and ensures that these patients are transported to the ED
- > Consequently, low risk patients are identified and only these patients are offered alternatives to the ED

- > CARE can only be used by qualified paramedics who have done the CARE course
- > CARE paramedics are not referred to specific cases nor dispatched on the basis of their CARE skill set
- > Paramedics must ensure valid consent exists by assessing the patient's capacity and competency prior to arranging a non-ED alternate care option
- > CARE practice is based upon a shared understanding between both patient and paramedic
- > If any doubt exists surrounding patient presentation or disposition, transport to the ED

CARE paramedics receive training in:

- > Clinical decision making
- > Patient Safety
- > Consent & Refusal in Pre-hospital Care
- > Managing non-transport situations
- > Primary Survey, including WORTHING Score
- > Secondary Survey
- > Social / personal history
- > Documentation and coding
- > CARE pathways and exclusionary criteria
- > Skills (Ottawa, Peak Expiratory Flow)
- > Managing the older patient & EAR screen



The Worthing Scoring System

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	Score			
	0	1	2	3
Ventilatory frequency	≤ 19	20–21	≥ 22	
Pulse	≤ 101	≥ 102		
Systolic blood pressure	≥ 100		≤ 99	
Temperature	≥ 35.3			< 35.3
Oxygen saturation in air	96–100	94 to < 96	92 to < 94	< 92
AVPU	Alert			Other

Score 2,3,4—be alert!

1. Increase frequency of observations
2. If score increases, then review management plan with doctor

Score 5 and above—urgent doctor review and management plan to be discussed with SpR

- 0001 Abdominal pain
(other than cramping with vomiting AND diarrhoea)**
- 0002 Chest pain of any origin**
- 0003 Clinically obvious intoxication (alcohol/drugs)**
- 0004 Concerning history**
- 0005 Headache**
- 0006 Less than 16 years of age**
- 0007 Pregnancy**
- 0008 Primary Survey Positive**
- 0009 Signs of local/systemic infection**
- 0010 Suspicion of CVA/TIA**
- 0011 Syncope**
- 0012 Worthing Predictive Score > 1**

01 Emergency Department (50%)

02 Self-care with advice (33%)

Low clinical risk who are expected to be able to manage their condition with advice, but who may require further medical/health care if their condition does not improve, deteriorates or becomes concerning for the patient.

03 Recommendation for care (12%)

Low clinical risk who require further care from a GP or health care provider in order to properly manage their condition.

04 Immediate referral for care (5%)

Low-medium clinical risk who require direct and immediate referral in order to facilitate non-urgent care asap.

CARE paramedics can refer to services in the community

- > 7% of CARE jobs have a referral attempted whilst on scene
- > 40% of these referral attempts are successful (37% afterhours)
- > 53% of referrals are to GPs
- > The remainder of referrals go to:
 - Wound Clinics
 - Community Nursing
 - ACAT
 - Dental
 - NSW Ambulance ECPs

Extended Care Paramedics (ECPs)

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COURSE

“This course has greatly increased my clinical capabilities relevant to community need. In other words, I think I will have a positive impact in providing more appropriate & suitable care to more people. I will save more lives in the long run with CARE than any ICP skills”.

“Great course - learnt a lot and enjoyed it thoroughly. Has changed my case sheet writing to a more detailed explanation - greater risk mitigation issues”

“Overall one of the better and more influential ASNSW courses”

“I hope the CARE program is expanded & given full support & practical resources to continue to be developed”

Slide 19

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you'll need two, and I'd stick to the one font throughout
smgallagher, 23/10/2009

PUTTING IT INTO PRACTICE

“It really helped with my assessment of the patient”

“I had an old couple who I visited and the old man was looking after his wife; she had fallen and wasn't injured. I think I spent about half an hour on scene and organised ACAT. I got feedback from ACAT and it went really well”

“The people that you use the pathways on are happy because they don't necessarily want to go to hospital”

“You've got plenty of people who are pretty capable of looking after themselves and that encourages you to use CARE because you don't want to see them waiting around in hospital for 5 hours”

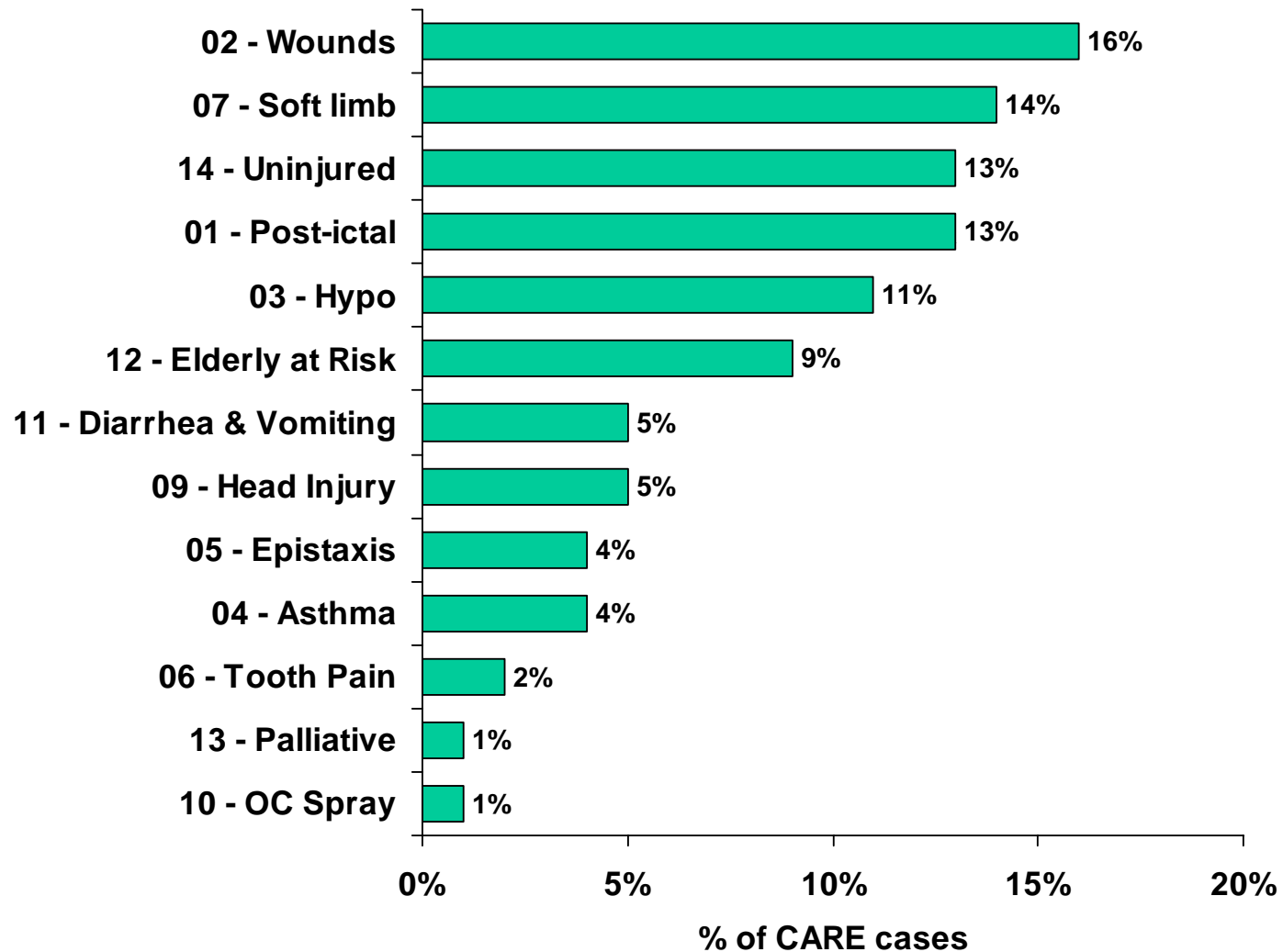
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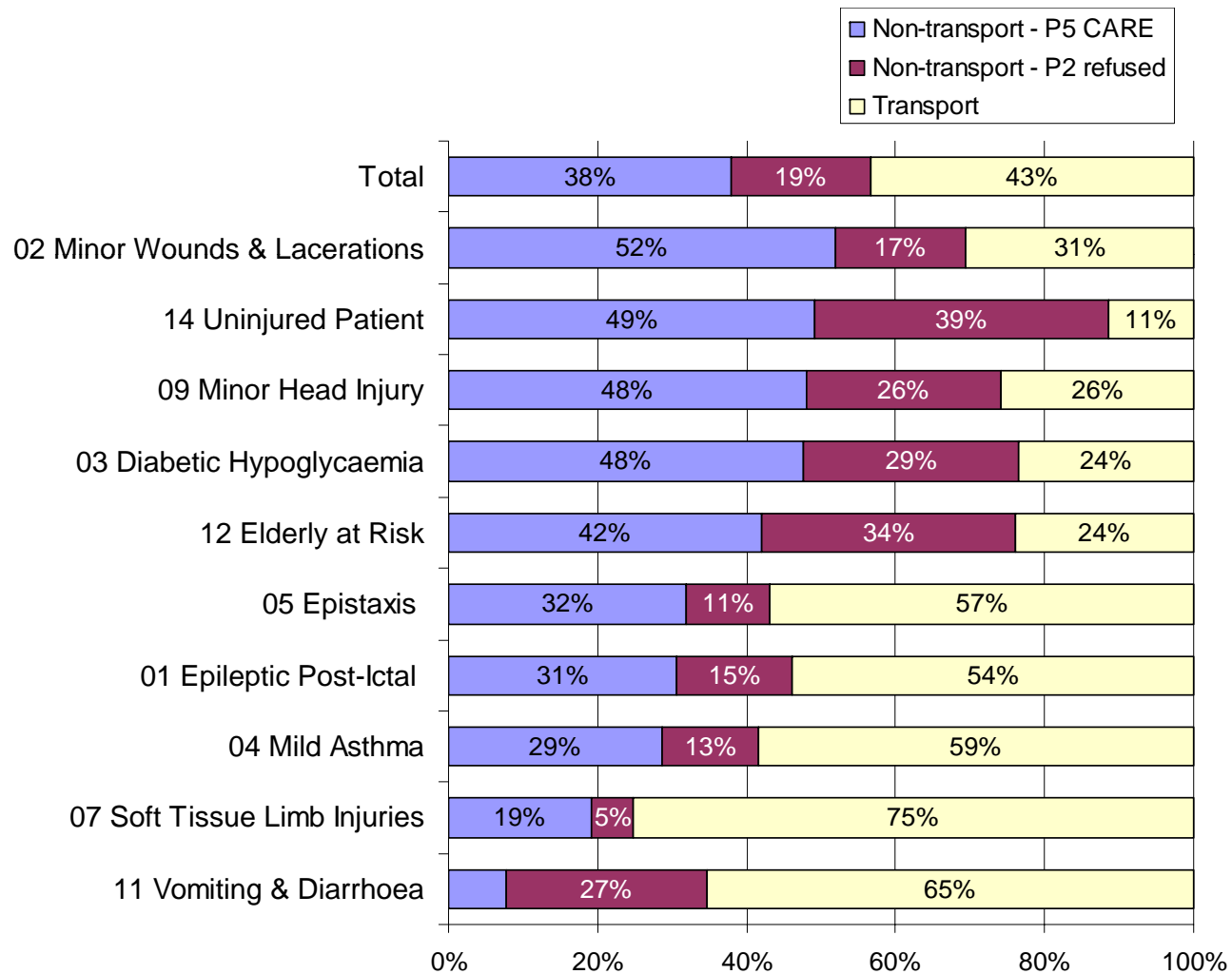
CARE Pathway Activity

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CARE Pathway Transport Disposition

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- > Paramedics find the clinical pathways and tools easy to use and feel confident utilising their CARE skills.
- > 96% of patients reported they were satisfied or very satisfied with the care they received from CARE paramedics and the recommendation they received for ongoing care.
- > 51% of CARE patients are not transported
- > Scene time is longer, but case-cycle time is shorter for CARE jobs
- > The application of CARE pathways by paramedics needs to be increased so that all patients that present with a CARE condition are put into a CARE pathway

Strategies to increase the number of potential CARE jobs that are put into pathways:

- > Preferentially train clinical leaders (SMs, ICPs)
- > Added into ASNSW protocols
- > Informational wall charts for stations and EDs
- > CARE kits
- > Reducing administration requirements
- > Face to face updates with CARE paramedics
- > KPIs
- > Station Manager Reports
- > Individual Paramedic Reports
- > Other health care providers being aware of CARE

A CARE paramedic can be expected to see ~70 CARE eligible patients each year

If 38% of these patients can be offered a CARE non-transport this means that in one year a single CARE paramedic will have achieved:

- > 70 patients who got appropriate care in the right place at the right time
- > 27 patients that didn't need to go to ED
- > 15 hours of time in which they were free to attend urgent cases
- > A significant contribution to reducing ED congestion

If 1000 paramedics were trained and applied CARE at this rate:

- > 70,000 patients who got appropriate care in the right place at the right time
- > 27,000 patients that didn't need to go to ED
- > 15,000 hours of time (625 days) in which they were free to attend urgent cases

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