

BRIEF DESCRIPTION

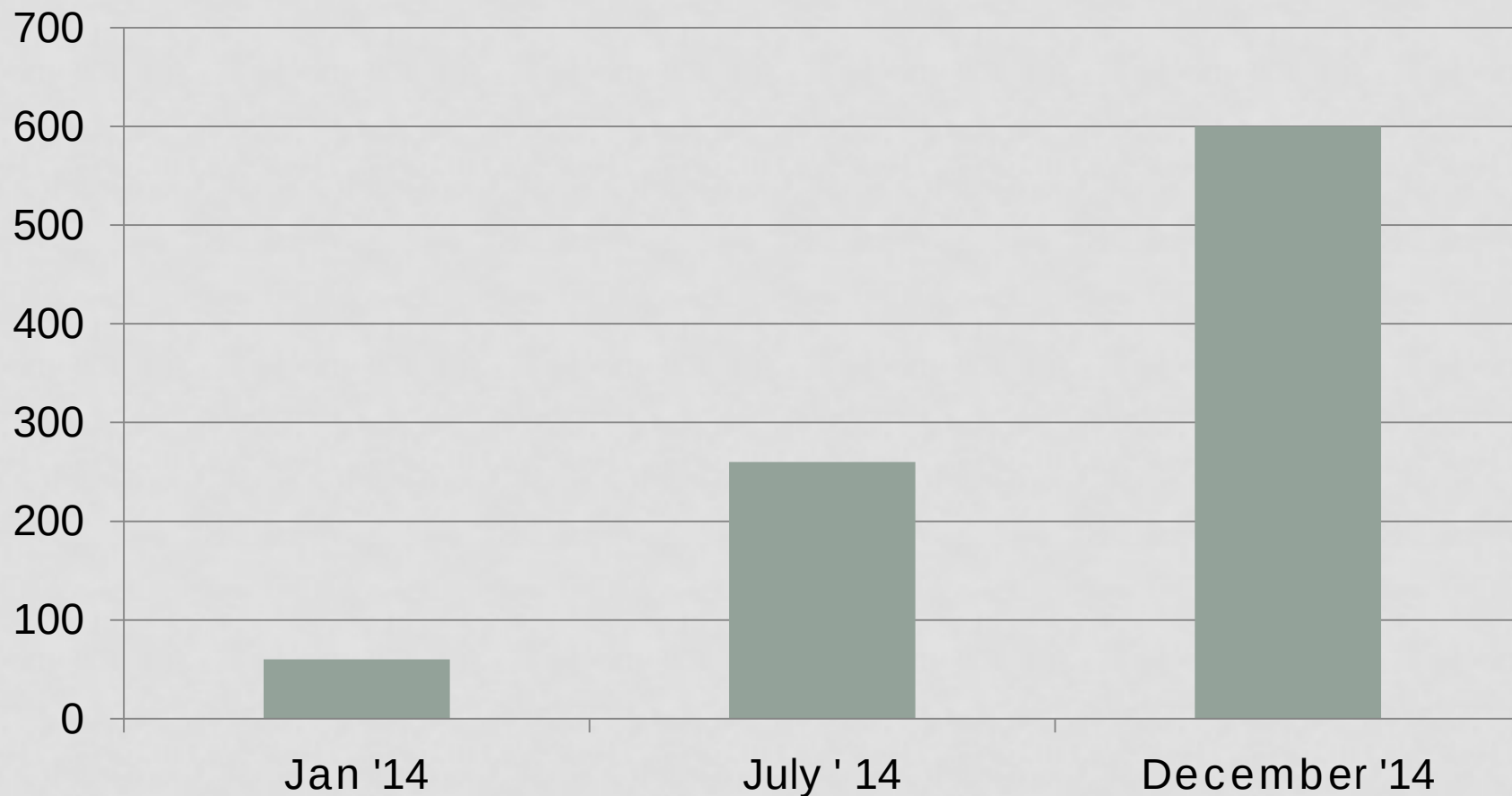
The aim of the project was to look into opportunities in which product intervention could potentially ease the stress on Paramedics today and in the future.



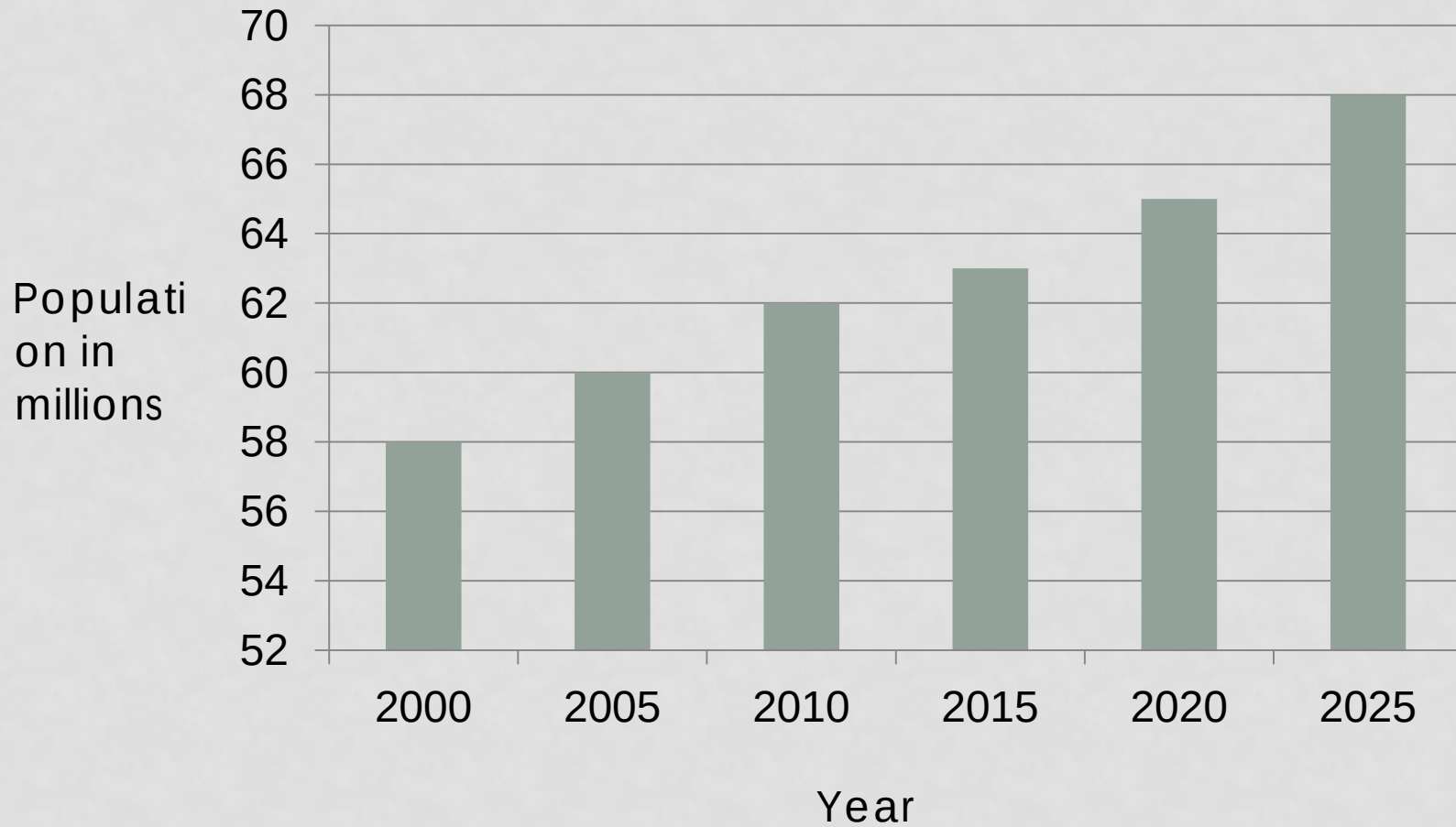
BACKGROUND INFORMATION



NUMBER OF VACANCIES URGENTLY NEEDING FILLING IN THE LONDON AMBULANCE SERVICE



POPULATION GROWTH



EFFECTS OF POPULATION GROWTH

Natural Disasters



Pathogen



Terrorist Acts



Severe weather



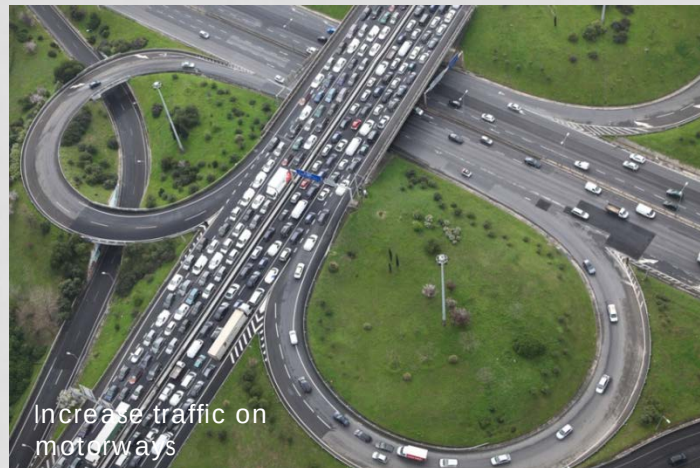
Rioting



More dependency on mass transport



Increase traffic on motorways



ON-SCENE STRESSES

The casualty



Lack of Teamwork



Documentation on Scene

A triage tag form with 'FRONT' and 'BACK' sections. The 'FRONT' section includes fields for Patient's Name, Date of Birth, Sex, and a Triage Tag with color-coded categories (Immediate, Delayed, Minor). The 'BACK' section includes fields for Patient's Name, Date of Birth, Sex, and a Triage Tag with color-coded categories (Immediate, Delayed, Minor). The form also includes sections for 'MORGUE' and 'EVIDENCE'.

Acts of Aggression



Treatment



Nearby Dangers



Difficult Weather Conditions



Field Triage



CASUALTY COMPLAINTS

Injuries



Confusion



Panicking



Lack of Shelter or Protection



Anger



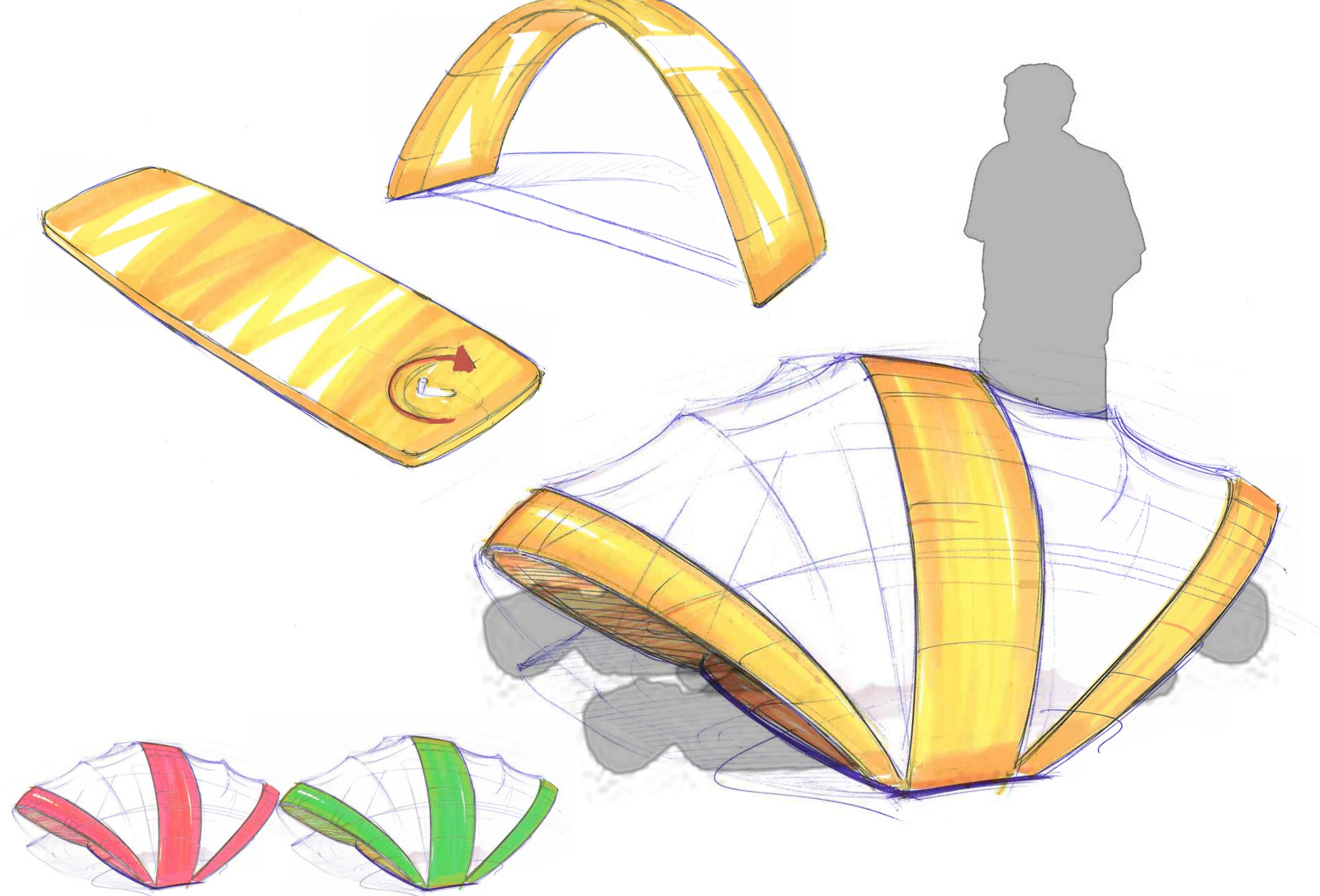
SHELTER



- Primarily casualties are guided to coloured tarpaulin that corresponds with casualties assigned colour category
- Often within eyesight of incident
- Confused patients often tend to wander as result of no shelter and being exposed to cold weather and rain.
- Injured patients need to be exposed during triage to allow for any necessary treatment

PDS

- The shelter will need to be a quick and easy set up
- Offer shelter from the elements
- Offer easy access to casualties.
- Use up minimal space within rescue vehicles



Casualty Shelter Concept

BENEFITS

- Offers shelter and heating for 6 people
- Colours relate to patient severity categories
- Easy access to patient when needed.
- Promotes calm by offering casualty protection from the elements
- Quick and easy set up

'ABCDE' FIELD TRIAGE



- Triage is used when the number of casualties outweighs the number of rescuers on scene
 - It is used as a decision making tool to establish the severity of individuals injuries and determine a order of treatment and evacuation from the scene
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- Paramedics are given one minute to determine severity of injury per casualty
 - To do the greatest care for the greatest amount of people. Worst = First

STEPS

- Support of cervical spine
- 'A' - Airways
- 'B' - Breathing rates are checked.
- 'C' - Circulation, pulse are checked.
- 'D' – Disability or Neurological condition.
- 'E' – Exposure of patient removing clothes.

CATEGORISING

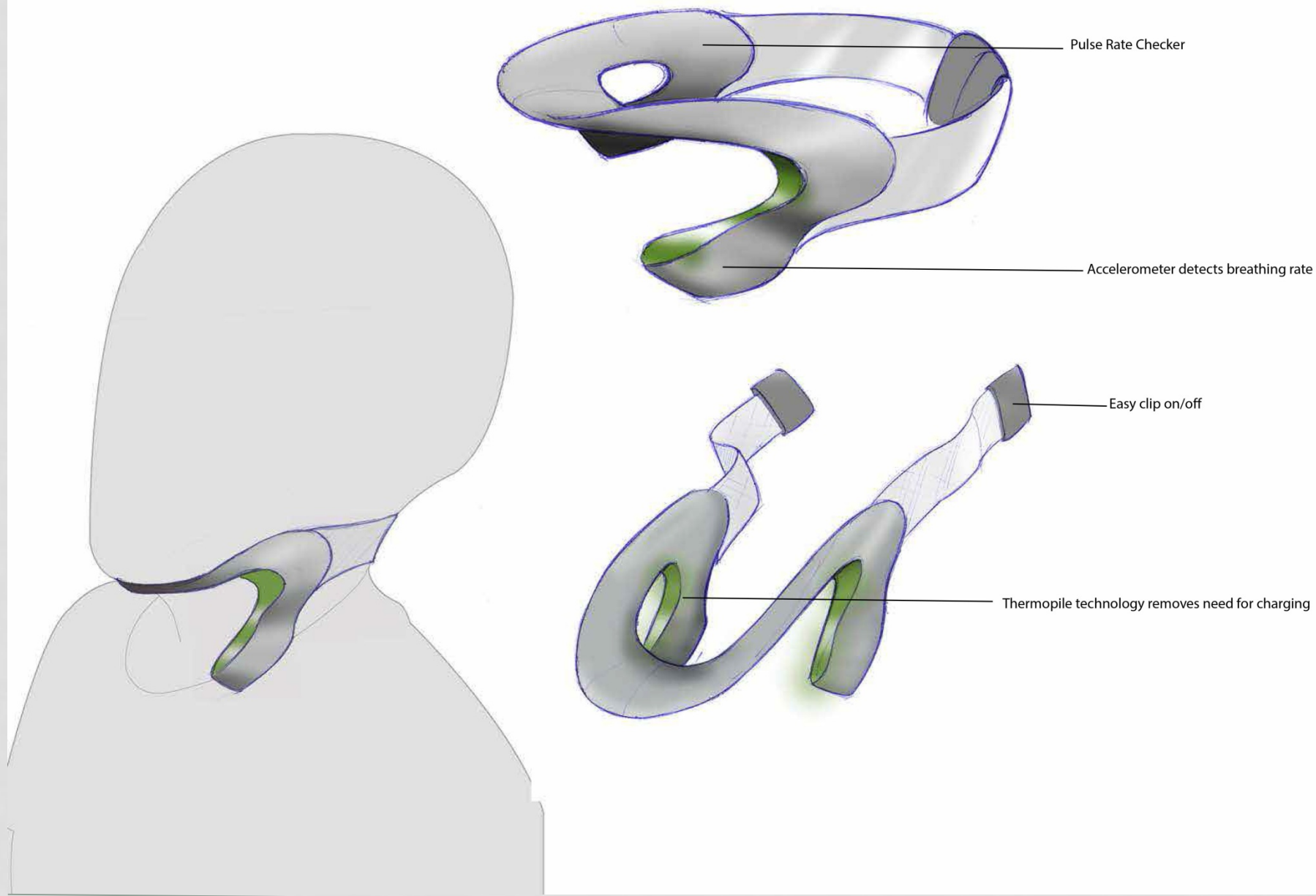
	1 Red Resuscitation (0min)	2 Orange Urgent (15min)	3 Yellow Less urgent (60min)	4 Green Not urgent (180min)
A	Obstructed airway Stridor	Threatened airway		
B	SpO ₂ < 80 RR > 35 or < 8	SpO ₂ : 80-89 RR: 31 - 35	SpO ₂ : 90-94 RR: 26 - 30	SpO ₂ ≥ 95 RR: 8 – 25
C	HR > 130 BP _{sys} < 80	HR: 121 – 130 HR < 40 BT _{sys} : 80 – 89	HR: 111 – 120 HR: 40 - 49	HR: 50 – 110
D	GCS ≤ 8	GCS: 9 – 13	GCS = 14	GCS = 15
E		Tp > 40 Tp < 32	Tp: 38.1 – 40.0 Tp: 32 – 34	Tp: 34.1 – 38.0

WHY IS IT STRESSFUL?

- Location and triage times of patients have a direct effect on their outcomes.
- Correctly reading casualty as to avoid over/under triage
- Casualty is often incoherent due to shock or confusion
- Casualty deterioration
- Record keeping

PRODUCT SPECIFICATION

- Faster than a minute to conduct triage
- Could incorporate a continuous triage
- More accurate reading
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Triage Neck Brace

BENEFITS

- Only requires one person to apply
- Conducts real-time triage on patient
- Quicker to apply than triage
- An upgrade from current equipment
- Removes the need for Paramedics to make decision on severity of patient
- More accurate measurement reducing over/under triage
- Generates its own power through body heat
- Easier location of casualty by other paramedics or EMTs

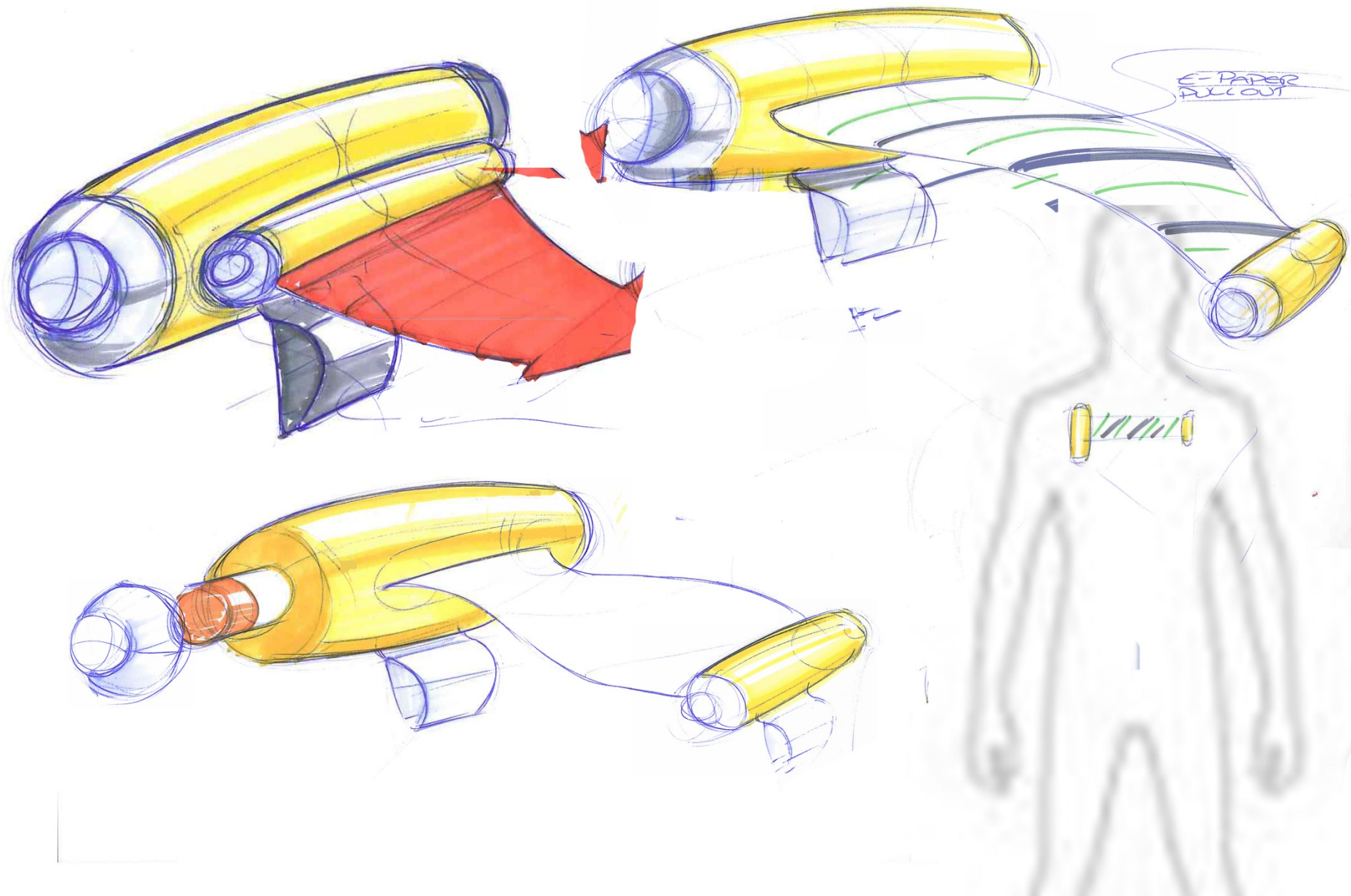
DOCUMENTATION

[illegible]

- Important patient details are recorded onto tear able tag
- Use of scrap of paper is quite regular due to lack of stocking

PDS

- Offer greater space for information
- Reusable
- Clearer to other rescuers
- A sturdy replacement to paper based
- Easier transfer other information between different personnel
- Simple input of information



BENEFITS

- Larger space for casualty information to be stored
- E-paper has a low energy consumption
- A reusable alternative to paper based tags
- Can be clipped onto casualty.