

AlfredHealth

Life

Tackling the toll

Trauma
Care

FACING THE FUTURE

The Alfred's trauma facilities are full of desperately sick and injured people.

Fortunately, Director of Trauma Services, Professor Mark Fitzgerald, says humans are "incredibly resilient".

"People survive more than they did five to 10 years ago."

Major trauma treated at The Alfred increased by a staggering 13 per cent last financial year. That's more than 1400 people requiring intensive care, multiple operations and long hospital stays.

Overall trauma admissions exceed 8000 each year.

This accounts for people in car accidents, pedestrians hit by cars, people falling off ladders and cyclists injured on our roads.

Victoria's population is constantly growing, our people are steadily getting older and risk-taking behaviours continue, no matter how good the preventative marketing campaigns are.

As one of two major trauma centres for adults in the state, The Alfred has had to be creative in its approach to the ever-increasing load.

"We push the boundaries. We're still constantly improving and have a greater understanding of why people survive with terrible injuries," Professor Fitzgerald said.

Care has evolved, just as the injuries have. With seatbelts and airbags came greater chance of survival. With a changing face of trauma in an ageing population, came The Alfred's experience and expertise in keeping people alive despite often insurmountable odds. Our mortality rates remain low – of the 8000 trauma admissions last year, 98 per cent of patients survived.

Each day, helicopters and ambulances bring an average of four major trauma patients. This is predicted to rise to six major traumas a day in 2020, when Victoria's population is expected to reach almost 6.5 million.

The Alfred's ability to meet every challenge and overcome each obstacle is something Clinical Service Director Emergency and Acute Medicine Simone Alexander has full faith in. And she is a 20 years plus veteran of Alfred Health.

"We work hard at recruitment to have the best workforce, we have systems in place to ensure the best care, and staff work hard to support and maintain the resilience of our exceptional team," Ms Alexander said.

"We are really good at dealing with crises.

"We are one of the highest performing health services and despite obstacles and physical restrictions we continue to deliver quality patient care."

Trauma surgeon, Dr Kate Martin said staff are well-known for rolling up their sleeves and getting on with the job, but they're well aware of the problems they cannot fix. One area needing improvement is more spaces for families.

"At the end of day you could put us in a tent in Fawkner Park and we would do what needs to be done," Dr Martin said.

"But we have to advocate for our patients – we are often more focused on the pointy end of saving lives, but we also need to maximise the chance for people to have the best recovery they can and have private areas for families so their journey is as least traumatic as possible."





Professor Mark Fitzgerald
Director
Trauma Service

We're here for you

When the Victorian community has needed us, we've been here to help. Over the years, Alfred Health has cared for seriously injured patients following significant events like:

- Incident at Bourke St Mall
- Thunderstorm asthma
- Springvale bank fire
- Black Saturday bushfires
- Bali bombings

Trauma toll 2015-16

- 13% increase in major trauma in 2015-16
- Blunt trauma (impact from car accident or assault) has increased 15%
- 7% increase in ICU admissions
- Peak time for major trauma arrival was 6pm
- Over 70% of major trauma patients were male
- 20% increase of patients with a high severity of injury
- 68% of those who died from their injuries were over 56 years

Top 10 injury causes for major trauma

1. Fall – low (less than one metre)
2. Motor vehicle – driver
3. Fall – high (over 1 metre)
4. Motorcycle – driver
5. Pedal cyclist
6. Motor vehicle – passenger
7. Pedestrian
8. Cutting, piercing object
9. Fire / flames / smoke
10. Struck or collide with object

Dr Helen Stergiou.

The changing look of trauma

**One-third
of trauma
patients are
older people
with severe
injuries.**

In the 24 years Helen Stergiou has been a doctor, the 'face' of trauma has changed dramatically. It is no longer young people in car accidents who fill our trauma bays.

"We have a lot more elderly trauma patients these days – the primary cause of major trauma is falls from a standing height," said Dr Stergiou, Emergency and Trauma Physician.

"It's taken just one generation to have this change. Older people are now pretty active around the house and some are more adventurous and cycle regularly.

"We regularly care for people in their 80s."

With an ageing population comes complex care.

"Many are on blood thinners, which work as preventative agents for heart attack, stroke and blood clots, but their effects are often not easily reversed. So, if there is bleeding, patients can have significantly negative outcomes.

"Something simple like a misplaced rug can be a trip hazard, and we see injuries including bleeding on the brain. I'm amazed how many broken necks I have seen from simple falls."

Risk taking continues to be a big problem.

"Some people know they are taking a risk and do it anyway, like an older person standing on a ladder. Risk taking with alcohol is such a massive issue culturally and drugs like ice are just horrific," Dr Stergiou said.

"Also, sometimes there is sheer bad luck – you can be in the wrong place at the wrong time. Sometimes the gods have a very twisted sense of humour; it's so sad."

LIFE RIPPLES

At first, Connie Pimentel was not alarmed to hear her son had fallen off his bike, assuming it was his bicycle, not the motorbike.

"When I got there I realised the severity of it," Connie said.

Her son Christian was lying face down, with police in attendance. Connie collapsed in shock.

Christian's partner Alice said that first night in The Alfred's ICU was frightening.

"We were told Christian was in a very critical condition. His main artery connecting his heart to his kidneys had been severed and he was bleeding uncontrollably," Alice said.

"They had used 100 units of blood."

Christian's injuries were severe – he had broken both arms, his collarbone and multiple ribs. He had punctured both lungs, bruised his heart, lost a kidney and lacerated his liver. Due to losing so much blood, he sustained a hypoxic brain injury (lack of oxygen to the brain), leading to a mild stroke that left him temporarily paralysed on the left side of his body.

Back in the waiting room, Christian's family were in great distress. His mother Connie collapsed another two times and was taken to Emergency for treatment.

"There was a chance we could lose him. I've been in a daze (since the accident). I'm worried and stressed. I'm not myself anymore; I struggle from day to day," Connie said.

Thankfully, Christian is slowly recovering. Still an inpatient in June, he only remembers leaving Alice's house to get changed for the beach, before waking from a coma almost a month later.

The road to recovery has been paved with obstacles. Christian has been to rehabilitation twice but re-admitted to The Alfred, due to problems with his lung and then his liver. His left leg, once paralysed from the stroke, still shakes and he cannot walk or sit for long. His goals are simple – to be able to dress himself, shower independently and eat with a knife and fork again.

Just before Christian leaves The Alfred – hopefully for the last time – he marks a big milestone – his 21st birthday.

“We all were told to prepare for the worst.”



My story

Christian's long term partner, Alice Mardale spent many days and nights at his bedside.

"My whole world has changed.

"I was there at the accident, I held him in my arms, I had blood all over my arms. It was traumatising seeing him like that. I quit my full time job to be able to be here and support him as he was so limited to doing things on his own. I'm a very positive person. It was really hard, but I never believed the doctors every time they came in to tell us more and more bad news.

I asked the doctor 'do you believe in miracles? Because Christian will get better, I know he will!'

And he did."

After four months of care, Christian is still recovering, pictured with his mother Connie at The Alfred.





SECOND

**Trauma surgeon
Kate Martin often has
a smile on her face,
a half-glass full kind
of attitude and an
abundance of respect
for her colleagues.**

"It is very satisfying, rewarding work," Kate Martin says of her often-unrelenting job.

"The Alfred has been established a long time and has mature systems set up around trauma.

"A lot of staff are trained here and learn in an environment where trauma is second nature.

"When a patient is so sick that we need to do surgery in the Emergency Department, theatre staff come down at the drop of a hat. Everyone scrambles to make it happen.

"As the state service for burns, heart and lung transplant, we have a lot of urgent patients."

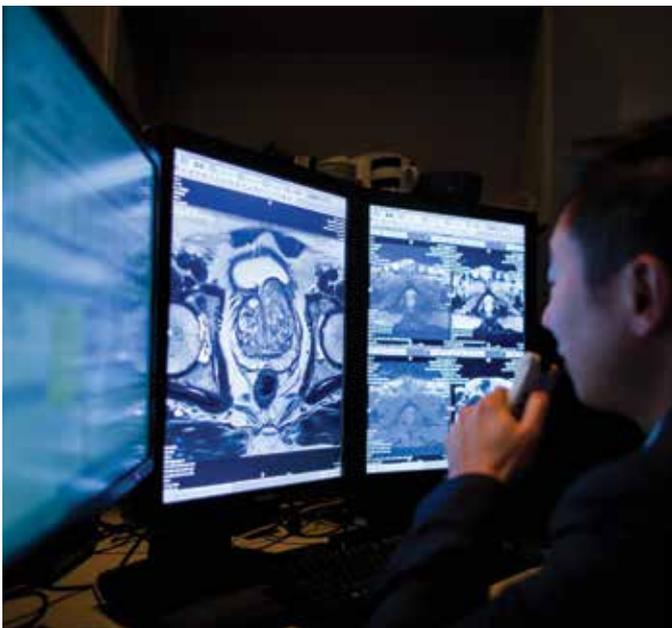
"There is always plenty of movement and colour in the trauma centre. Drugs, alcohol and trauma go hand in hand.

"Sometimes we call it the drama centre," Dr Martin laughs.

"None of our patients planned to be here. Trauma doesn't happen at a convenient time.

As types of injuries have changed over the years, so has the care.

"We use interventional radiology a lot, which is a brilliant service. It becomes really important for patients' trauma management – with radiology you can block vessels that are bleeding and save organs – you can't do that in surgery."



“Everything we do is about the patient. It’s such a privilege to be part of their care and provide support.”

NATURE

As a doctor, the relationships built with patients are so rewarding, says Dr Helen Stergiou, Emergency and Trauma Physician.

“I love this job – you can create order out of chaos. And you’re at the side of patients when they’re most vulnerable, which is an absolute privilege,” Dr Stergiou said.

“Everything we do is about the patient. It’s such a privilege to be part of the care and provide support.

“I cared for one patient from the Bourke St incident from the minute she came in and she left with hugs and kisses.

“To see the sickest woman in ICU go off to rehab, waving and smiling, was just stunning to see.

“Every hospital tries to do its best, but there is a breadth of experience here, the expertise and willingness to be flexible and creative in our approach. We have standardised processes but we’re also willing to push boundaries when we have to.”



Future planning

The wish for The Alfred is to be always able to meet the ever-growing demand and need, with considerations of population growth and an ageing community at the forefront.

Expanded ED: A redevelopment of our Eva and Les Erdi Emergency & Trauma Centre will result in greater capacity, with a fifth trauma cubicle, 17 more patient treatment spaces, double the diagnostic imaging capacity and more space for those with behaviours of concern. The redevelopment is thanks to private donors.

“We get several helicopters a day bringing patients with critical injuries – we are the largest trauma receiving hospital in Victoria. Trauma is one of our major specialities,” Clinical Service Director Simone Alexander said.

“We’ll have the environment to match our model of care, where patients receive rapid intervention and management – ensuring their needs are addressed efficiently and swiftly,” Dr Stergiou added.

The redevelopment is scheduled for completion in early 2018.

Critical care centre: Planning for the future is key to our ability to continue to care for all Victorians. Part of this involves planning for a new capital development that will further support trauma and critical care – the St Kilda wing.

Our vision is that this development will provide a state-of-the-art operating suite and pathology facilities and expanded modern wards and intensive care unit. We hope to make this vision a reality, with support from the State Government.



EXPORTING OUR TRAUMA EXPERTISE

Trauma expertise developed at The Alfred has been practised all over the world. We've shared our knowledge with countries including China, India, Sri Lanka, Saudi Arabia, Cambodia, Malaysia, Myanmar, Thailand, the Phillipines and Fiji.

Director of Trauma Services, Professor Mark Fitzgerald works with medical professionals all over the world. They come to The Alfred to learn about our co-ordinated approach to the resuscitation and surgical management of severely injured people. Prof Fitzgerald is proud of the compound effect of our work in Victoria.

“For every single life that we save here, we save approximately 10 lives overseas.”

Teams in China have taken on Alfred-developed software, which guides the life-saving steps of trauma resuscitation. Recently, a team from Saudi Arabia came to learn more, as The Alfred's reputation continues to grow.

“We got our trauma centre in 1989. It was a new concept and so successful, making such a difference to patient outcomes. Within 10 years we had a trauma system for the whole state and a 50 per cent reduction in deaths in the first seven years,” Prof Fitzgerald said.

“That system is driven by Alfred people – we have one of the best integrated systems in the world and that is why people come to look at our integrated trauma care.

“The volume here is phenomenal – by 2021 we predict we'll treat 2000 major traumas annually – that's a seven per cent growth each year. Thanks to seatbelts and airbags we see more people surviving accidents, but with more severe injuries.”

Prof Fitzgerald says the key to good outcomes is not focusing on just one aspect of care.

“It can take a year or two to get over life-threatening injuries. Everything we do is geared towards regaining function and independence.

“Our clinical work, which is becoming increasingly automated and computer-assisted, has resulted in a significant reduction in human error. These advances are further enhanced through our research and expert rehabilitation at Caulfield Hospital, as well as through prevention work in partnership with Ambulance Victoria and Victoria Police.

“It's a great job, a great thing to do with your life. Most patients have very good outcomes.”

AlfredHealth

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