Major incident response: how each tragedy informs future nursing care

With every mass casualty event comes improved clinical understanding and greater preparedness.

When a bullet is fired into a gelatine block, the gelatine behaves in a similar way to human muscle tissue. By using high-speed digital photography, the impact of the bullet can be tracked. A bullet from an AK-47 assault rifle, for example, flies straight but then becomes unstable. As a result, it creates a large cavity associated with tissue stretching and tearing before it exits a victim's body.

This ballistic detail comes not from a police or army manual but from NHS England's Clinical Guidelines for Major Incidents and Mass Casualty Events, published late last year. The guidelines are evidence of the advances made in the preparedness of UK health services to respond effectively to large-scale, challenging clinical scenarios.

But some tough lessons have been learned along the way. Carole Olding is lead nurse for trauma in the emergency department at King’s College Hospital, one of London’s major trauma centres. She trains nurses in the management of mass casualties and played a leading role in the hospital’s response to the Westminster and London Bridge terrorist attacks and the Grenfell Tower fire.

When a major incident is declared, ‘everything swings into action’, Ms Olding says. ‘There’s this cascade that goes on – calling the essential people, getting the essential things you need, the extra blood, the extra fluid.

‘It’s about having the right people with the right skills to be able to make the right decision. And that’s why we have a lot of training.’

Different in the 1980s

She contrasts this slick, practised operation with an incident from 1982 when the IRA left a bomb beneath a bandstand in Regent’s Park in London, killing seven soldiers.

'I worked at University College Hospital and was sent...
to the park in my uniform, with the apron, starched collar and frilly hat. There was me and a senior house officer. We had no training. It was ridiculous, like headless chickens running around.’

In Northern Ireland, however, enduring violence during the Troubles meant that nursing and medical teams were to become much better equipped to respond to, and learn from, terrorist attacks.

Nurse Margaret Graham, now retired, trained at the Royal Victoria Hospital (RVH) in Belfast, and later helped collect narratives from nurses who had worked through the conflict published in 2015 in Nurses’ Voices from the Northern Ireland Troubles.

Better contingency planning was one legacy of the conflict, she suggests. After a bomb in Belfast city centre injured dozens and caused five people to lose 11 limbs between them, ‘we sat down with everybody and redesigned what was called the disaster plan’, she says.

‘It was a step-by-step guide, so everybody knew their roles and the telephone lines weren’t getting clogged up. A process was put in place.’

‘Honing their skills’

Techniques, treatments and knowledge advanced rapidly, especially in emergency and intensive care, neurosurgery, fractures and theatres, because staff were honing their skills daily.

Ms Graham adds: ‘Staff could change rapidly from doing a routine appendicitis to major trauma. They would turn the theatre round in a click of the fingers.’

Treating so many victims of the violence meant that the RVH refined all sorts of emerging treatments and clinical practices, says Horace Reid, who also was a nurse at the hospital during the Troubles.

‘Because of the pressure of numbers and the severity of the injuries, the RVH was forced to adopt techniques developed elsewhere and quickly become very practised in them.’

He cites external fixation for fractures, treatment for blast injuries to the lung, and titanium plates in neurosurgery as examples where medical teams and nurses learned fast.

‘If you’re having a disaster every ten days, you get pretty proficient,’ he adds.

Psychological support

But one area where little progress was made, and which distinguishes that era from this, is psychological support.‘There was no formal debriefing, no psychological care for the patients and certainly none for the staff,’ says Mr Reid. ‘If you can’t handle it, you shouldn’t be in this job — that was the attitude.’

By contrast, following the 2017 Manchester Arena terrorist attack in which 23 people including the bomber were killed, patients, families and staff at the Royal Manchester Children’s Hospital were offered immediate support, says lead nurse for critical care Clare Ryan.

Psychologists, psychiatrists and the child and adolescent mental health team were on hand to provide one-to-one and group sessions, and that support continues, she says.

The hospital’s emergency department treated 29 children and five adults after the attack and two years on the experience continues to resonate among staff.

Self-care in the aftermath

‘We know that in the critical care community and in adult intensive care there’s a recognised emotional burden when caring for people in highly charged situations,’ Ms Ryan says.

A self-help app, developed with expert input after the bombing, allows staff to monitor their own well-being and to seek help if unusual and persistent symptoms occur.

Gina Stevenson, matron in the hospital’s paediatric emergency department, describes her team’s response to the deadly attack as calm, ‘very coordinated, very organised’.

‘The most important thing I’ve learned is terrible things can happen, and you have to be brave enough to challenge things when they’re wrong, not be part of the problem’

Emma Kennedy, pictured right, Grenfell outreach team manager
'There had been a recent run-through of the major incident plan in the trust, and the plan was followed. We’d rehearsed for it and the plan worked.'

Today, successful management of mass casualty incidents is characterised by preparation and planning, and the chaotic response Ms Olding remembers in Regent’s Park is a reminder that much has been learned.

And the learning continues. The Manchester attack was unusual because of the high number of young victims. Ms Ryan says that presented particular challenges. ‘We did have a couple of issues regarding identification because children under 16 don’t generally carry identification.’

Close liaison with the police and other services, detailed descriptions of victims’ clothing and asking parents about ‘unique identifiers’ enabled identification of patients.

And a reunification area with dedicated staff meant the paediatric emergency department was not overwhelmed by concerned relatives.

Unique issues of the Grenfell fire
All major incidents bring their own unique challenges. Emma Kennedy manages a nurse-led Grenfell outreach team for Central and North West London NHS Foundation Trust.

The Grenfell Tower fire in June 2017 left 72 people dead and dozens injured. It also left a community grief-stricken, traumatised and angry.

‘The community was so angry with anything that represented authority,’ Ms Kennedy says. ‘We were a representation of the state as far as the community was concerned.’

‘From the outset, the narrative was “I can’t trust you”. Basically, there was a shift in power. We had to be true servants of the population we were serving.’

Collective learning
But from those difficult conversations came collective learning – about building sustainable, accessible support and truly user-led services, for example; and using the community as a resource to promote health in that community, a model the wider NHS could use to its advantage, Ms Kennedy suggests.

As well as team learning, involvement in major incidents brings personal reflection and insight. Ms Kennedy says: ‘The most important thing I’ve learned is that terrible things can happen, and you have to be brave enough to challenge things when they’re wrong and not be part of the problem because of your own fear of being wrong, your own safety system.’

NHS England clinical guidelines for major incidents and mass-casualty events
tinyurl.com/NHS-casualty-guidelines

Do you need support?
RCN members can access the college’s free counselling service. Call 0345 772 6100 or go to tinyurl.com/counselling-RCN

Call the Samaritans anytime, free, on 116 123, or visit samaritans.org

Robust processes, excellent communication and dedicated staff

Mick Dowling is head of nursing for critical care at King’s College Hospital in London.

In his 20 years at the hospital, what has he learned about effective nursing responses to major incidents?

‘It’s all about experience and preparation. We have a well-organised, well-structured team who understand their roles and responsibilities.

‘The senior team is very strong but we also have a dedicated, excellent workforce who can deliver whatever is needed to ensure patients are cared for.

‘I’m also assured by our processes and that we have the right people doing the right jobs at the right time. And all my matrons and staff know they will get the support, the equipment, the tools, and that they’ve got the training to do the job when we ask them to do it.

‘But the factor that stands out is communication – the number-one priority in any major incident.’