

# Crossing the Rubicon

This is an age of total surprise, strategic traps and operational swamps, say **Dr Patrick Lagadec** and **Professor Pierre Carli**. New global challenges mean a looming watershed in emergency response and critical care strategies

**E**MERGENCIES HAVE ALWAYS called for the most efficient operational capacities, with fast response being the core paradigm. The best preparation comes from prior scenario clarification, prior operational planning, ready-made tool-kits, regular drills and the most efficient instant response: alert, mobilise, rush and save. When you hear the siren, it is no longer the time to think, to question the rules of engagement. It's time to act and apply what you know, what you have been trained for. This is the ultimate strength of our emergency teams: ready to rush, ready to save.

The last decades of the 20th Century showed that we had to strengthen these abilities considerably. The scale and complexity of disasters increased steadily, with more infrastructure to destroy and many more people to kill. We had to prepare more comprehensive plans and more developed organisational responses. Modern countries had to prepare for large operational theatres, with many bodies acting together for very long periods, under the severe scrutiny of the media.

But the 21st Century opens a new era. Increasingly, we are faced with: a qualitative jump in severity (for example the December 2004 Tsunami and the Madrid attacks); a shift from uncertainty to ignorance (Prions, mutating viruses and potential pandemics); a shift from site accidents to network domino effects (continental black-outs, such as in the US and Canada, August

2003); globalisation and speed of spread (the SARS contamination, the conjunction of unknown virus, air travel and hubs worldwide); unthinkable effects in globally interdependent societies with new vulnerable textures (the heat waves, for instance); and, most disturbingly of all, the inconceivable (the age of hyper-terrorism, when some have voluntarily chosen to embrace the universe of death).

This is an age of total surprise, strategic traps, and operational swamps. Naturally, rescuers have still to rush, save and solve. But in order to save, they must stay alive. And to solve, they must address emerging issues, not ones that prevailed previously, in a former age. The command is crystal clear, "Do not fight the last war".

## Unprepared

Let's remember 1914. General Bachelet said: "We marched into the industrial era with the agrarian mindset of the previous age". To quote one of his British colleagues: "We were caught totally unprepared. In 1940, we were fully prepared – for the First World War".

The "9/11" Commission Report echoes these comments: "[it] was different from anything the Government had faced before". Essential gaps were underlined: "We believe that the 9/11 attacks revealed four kinds of failure: in imagination, policy, capabilities, and management." The Commission clarifies the structural problem: "Imagination is not a gift

**'Untitled (emergency room)' by Fiona Rae, epitomises the paradigm shift in 21st Century crises, says author Patrick Lagadec. Complex, fuzzy, inconceivable, fragmented ... today's threats and challenges occur in a context of instability and poorly defined frontiers; responders must deal with sudden and unexpected mutations in a crisis scenario. Intellectual strategies must evolve**

usually associated with bureaucracies.”; and observes the result: “The agencies are like a set of specialists in a hospital, each ordering tests, looking for symptoms, and prescribing medications. What is missing is the attending physician who makes sure they work as a team”. The Commission could have added that what is missing, ultimately, is to know what it is about, where to go, with whom, and how.

The core of the issue is not easy to accept, if risks and crises cross the Rubicon – ie follow new patterns outside our mindsets, then our usual modes of response are no longer as efficient, and probably counterproductive.

When traditional responses no longer fit, the focus must turn to questions. If you hurry in the wrong direction, you could be a hero, but a dead hero is just a rescuer lost. The classic response “We are here to act, not to think” becomes a roadmap to failure.

## Global challenge

This global challenge indicates a looming watershed in emergency response and critical care strategies.

The French organisation, which has proven its most advanced efficiency on many occasions, can be used as a good example to show the crucial need of a fresh approach. Pre-hospital emergency services provide an example for the analysing breakdown during a major disaster. The French system, started more than 30 years ago, consists of a chain of care from the site of the catastrophe to the hospital.

The system has two essential features. The first is the establishment of an advanced medical post (AMP) near the site in which medical teams in their mobile emergency response units start emergency treatment based upon triage. The second feature is the medically controlled dispatch system, which can direct patients not just to the nearest hospital, but to all available medical facilities, whether they be close or far away from the disaster site.

The immediate pre-hospital emergency response following a disaster is called the Red Plan. This is associated with a further White Plan, which has provisions for sending patients to a number of hospitals.

This system is described in detail elsewhere in relation to terrorist attacks (Carli P, Telion C, Baker D, *Terrorism in France. Pre-hospital and Disaster Medicine*, 2003, 18 :92-99).

Such a system has set a high breakdown point so that following a terrorist attack or natural disaster, more than 100 victims can be given a degree of emergency care which matches that provided daily in normal practice.

However, certain factors leading to an



**The December 2004 tsunami demonstrated a qualitative jump in the severity of disasters that we are facing (pictured above: Damage in Indonesia)**

organisational breakdown can occur in such a plan, not least of all a large number of victims. If these run into thousands, the hospital resources available may be overwhelmed. Casualties may also be spread over a very large area, as in the case of the explosion at the AZF plant in Toulouse in 2001, impeding recovery and initiation of emergency medical care. Equally, release of CBRN materials in a terrorist attack may disrupt the plan considerably, since pre-hospital medical personnel may not always be competent to operate under such conditions.

A number of solutions are being studied to try to raise the threshold level of disaster response failure and therefore to avoid breakdown in the provision of emergency care.

It is also important to put in place dynamic strategies that permit identification of potential response breakdown and to avoid problems that could be created by the emergency response plan itself being too rigid or dogmatic.

Other important factors are not always taken into account in emergency response planning. These include an attack on the emergency responders themselves, either as the target of a second bomb or by a chance factor such as the collapse of the twin towers of the World Trade Centre. By the same token, there may be accidental or deliberate destruction of Ambulance or Fire Service control and dispatch centres, or even of the hospital facilities themselves, which would cause an irreplaceable and catastrophic disorganisation.

## Communications

Loss of telephone communications would also be a major factor in reducing organisational response, as was seen in Toulouse when the communications network was destroyed during the AZF explosion.

The fact that the breakdown point in pre-hospital care can be caused by a domino effect is important in causing disruption at hospital level. This was seen during the Paris heat wave in August 2003, where the absence of any pre-hospital preventative measures and the limited availability of general practitioners, led to more than 2,500 seriously ill patients being admitted by the public hospital service in Paris.

The consequence of pre-hospital breakdown is therefore to put the hospital itself in the front line. This is not without hazard since contaminated victims (from a CBRN attack) may cause secondary victims inside the hospital itself. To limit this possibility a special Plan Blanc (White Plan) to deal with mass CBRN casualties has been created for each hospital, backed-up by special training and the provision of protection and decontamination equipment.

It is possible that when both pre-hospital and hospital response breakpoints are reached, the worst possible scenario will ensue, where there is loss of all means of communication with emergency medical responders outside the hospital, partial destruction of the emergency structures, as well as loss of a certain number of emergency response personnel. Such a nightmare situation is probably rare but it is important to consider the predicament of a doctor working in isolation with very few resources and a large number of casualties.

## ‘Lone doctor’

In such a situation the tasks of the ‘lone doctor’ may lead to a reversal of the normal disaster medicine priorities. Thus the classical role of the emergency medical responder as an organiser and information channel is altered when the doctor finds himself/herself temporarily alone with a large number of victims. He/she still has,

above all, a major role to play in providing an informed reconnaissance about the disaster and ensuring that the limited resources at his/her disposal will benefit the largest number of people. Direct medical care should only be started after the first two actions have been taken.

Consideration of the chain of support in pre-hospital care and the possibility of reaching the breakdown point in both the pre-hospital and hospital areas, show that two factors must be taken into account in planning for such a situation:

- A cohesive response that allows an overall continuation of control from the disaster site to the admission of victims at the hospital
- A system which allows for the different backgrounds of the emergency services involved (Police, Fire and Ambulance) as well as a common training pathway for these services, to allow them to work in circumstances very different from their daily routines.

## Rapid Reflection Forces

New challenges call for new responses. But more is needed, such as the ability to ask questions. This is not obvious at all, especially within organisations where emergency response has to be swift, direct, pre-planned, and followed by the book. The reason is clear. When the issue is outside the box, your pre-planned policy, strategy and tactics have to be reconsidered, often radically. In such cases, which may well be the ‘normal’ scenarios from now on, you need the capacity to ask questions, in addition to the usual capacity of being able to deliver pre-organised responses.

In emergency organisations, responders are trained to face typical situations. When new risks arise, additional plans are prepared. Much effort is devoted towards anticipating the event, clarifying the needs, and fixing the response. But something quite different has to become the core of our culture: preparing to face the unthinkable.

This brings a radical change in preparation and training strategies. The key becomes the ability to clarify the challenge, the new rules of engagement are outside the usual mindsets. For instance, our usual drills and simulation exercises have to evolve considerably. The goal is less to control the ability of each person and organisation to stick to the rules, and adapt to tactical surprises, than to work on the ability to ‘map’ the issues, to assure coherence and efficiency in a highly unstable and fuzzy context.

Our experience shows that this task is not so difficult: progress can be extremely rapid. But the most acute challenge is to convince people to leave the reassuring world of ‘responses’ and move to the unknown universe of open questions.

### Take part in a simulation and training session

*Clearly, in many official bodies there is an urgent need for bold initiatives to meet the challenge. A principle should be kept in mind: when challenges are so high and complex, it is necessary to keep it simple, and to adopt a step-by-step approach. The authors would welcome any request for help.*

*More precisely, together with Crisis Response Journal, they will be organising a half-day innovative simulation and training session with those who are interested taking part. The idea will be to play it simple, through the Internet.*

*Do not hesitate to step in and join this interactive and innovative move. There is no time to waste.*

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People accept being tested to see whether they know how to follow rules; but they react in a negative way if invited to enter an open process, where the challenge is not to follow, but to invent.

When your usual ‘rush and save’ organisations and tools are no longer adequate, it is crucial to have some people who can sit back and adopt fresh views, to consider radically new hypotheses and strategies. After a rapid reaction force we need a new concept: the Rapid Reflection Force.

The concept of Rapid Reflection Force does not grow out of nowhere. Quite evidently, people have always been thinking and reflecting during large-scale emergencies. In any Emergency Operations Centre, a corner is devoted to decision-making and, in a sense, to reflection. This function must be clarified, recognised, and prepared. It has been at the periphery, and, for unconventional emergencies, it must now come to the fore. If not, tactics tend to overrule any other piece of work. Before any rush, unconventional issues and deadly traps must be clarified. If this vigilant and strong effort is not developed and secured, the crisis environment soon becomes the kingdom of tactics and micro-management.

## Strategic observers

To fight this wholly normal tendency to lose sight of policy and strategy, some developments have already been implemented. For instance, in the late 1990s, we introduced the notion of ‘Strategic Observers’ during crises and simulation

exercises, especially in various large companies (in the field of critical infrastructures). In a nutshell, a pair of top leaders were asked to be present, from the beginning to the very end of a difficult episode; to ask questions, again and again: “What if? What next? Who did you forget? Didn’t you jump to a hasty conclusion? Could you clarify the hidden issues?”

## Difficult function

This is a difficult function to endorse; it is so comfortable to reassure everyone that those in charge have the right answers, that everything is under control, that our ‘crisis as usual’ textbook techniques are to be applied...

These observers were chosen taking into account some basic criteria: their in-depth knowledge of the organisation; the respect they had within the crisis group; their ability to speak to the CEO. Most noticeable of all was their outstanding ability to move in a shaken context and instable environment. These people were not terrified by questions outside the box. On the contrary, unconventional challenges stimulated their strategic and operational creativity.

We now have to go much further. In any crisis centre, and especially at national level in case of unthinkable events, Rapid Reflection Forces have to be set up. Their function: to clarify the unconventional. What are the hidden traps? Who are the new actors? What is new in terms of space and speed, domino effect complexities, uncertainty and ignorance?

We don’t want an academic-type think-tank able to clarify the issues within the next few months. We need a group of people accustomed to strategic issues and operational environments.

These people do exist but they are often dispersed – and not trained, at least collectively. They must be brought together in teams and trained in order to extend their experience and skills. In building these teams, we must be careful not to fall into the usual rut of assuming that members should be drawn exclusively from established circles: the goal is not to have those who excel in ‘business-as-usual’ management. The key is the ability to think and to ask beyond the usual boundaries. But, in any case, new strategies have to be adopted to train these people: unconventional simulations, systematic debriefing techniques for the most unthinkable situations; with the aim of developing the ability to think and act outside the box, to open new paradigms and strategies.

Usually, crisis training is tactic oriented. It must shift to an entire new universe: the focus must be on the policy, which requires imagination, flexibility and creativity. Not in theory, but in practice.