

## ICU professionals aim to be first on grid in 'Medical Grand Prix'

Less than 5% of intensive care units in Europe are equipped with the necessary computer technology for them to work at the optimum level.

So says Paris-based professor Jean-Daniel Chiche, chairman of the European Society of Intensive Care Medicine's Congress Committee, in the build-up to ESICM's 22nd annual congress [Note to editors, see full Chiche profile below].

The ESICM is an international non profit-making association of doctors, nurses, physiotherapists and other allied healthcare professionals, with more than 5,000 members in Europe and beyond.

### Time Ripe for Declaration on Patient Safety

According to Chiche and his colleagues, the timing has never been better for a collaboration by intensive care specialists, scientific societies, industry, and patient groups in respect of the groundbreaking 'Patient Safety in the ICU: The Vienna Declaration', to be signed in the Austrian capital on 10 October.

A winter plagued by the H1N1, the so-called Swine Flu virus, threatens to leave hospitals generally, and ICUs specifically, at full stretch, and patient safety will clearly have to be in focus more than ever. So is it expected that H1N1 will proportionately raise ICU morbidity rates?

Chiche is not certain, but says of H1N1: "There are several specific issues [with this virus]. Some patients have very severe respiratory distress with multiple organ failure soon after ICU admission - there are few effective anti-viral treatments and treatments are not as efficient as we would like them to be."

"A small proportion of H1N1-infected patients will require ICU admission, but this can potentially result in a critical care demand at the peak surge of the pandemic far in excess of what could be offered.

"In addition, their conditions may be so acute for a couple of days that they could need very specific techniques and resources that are not available in all hospitals. This can cause tension in units. Our ability to care for severe patients may well be impaired in the period from mid- October to the end of January."

Chiche added: “Although ICUs are equipped to face a surge of activity, we may face a shortage of trained personnel if the proportion of extremely severe patients was to increase. Indeed, such patients require a higher nurse to patient ratio to guarantee that the quality of care is maintained. So, it’s essentially about resources.”

## **The Role of Analysis**

Chiche says that the key elements in improving patient safety in general in ICUs - rather than in relation to any particular pandemic - are well-organised, well-trained teams, using up-to-date technology and, vitally, good analysis of processes.

He insists: “We must analyze what we do. If you introduce any new device or system, the most important thing is to be able to measure its impact on patient outcomes. When adverse events occur in our ICUs, it is vital to analyze the processes of care that were involved, to see if you can find something that can systematically go wrong, then imagine and implement strategies to prevent it.

“Rather than just reporting our mistakes, we must learn to document our compliance with measures that aim to prevent these adverse events happening. For example, monitoring what we do to reduce nosocomial infection rates may be the only way to eradicate the proportion of infections that are preventable.

## **The Resources Gap**

Crucially he adds: “Collecting data will improve safety in and of itself but at some point we need resources to collect it. While specific ICU computer information management systems are now mature, less than 5 percent of intensive care units in Europe are equipped with the necessary computer technology.”

So the technology is out there – albeit scarce - but are doctors and nurses reluctant to take on board new methods?

“No,” says Chiche. “On the whole, staff members in ICUs are good at adopting new technology, although ICU equipment becomes more and more sophisticated and complex to use.”

## **The Medicine ‘Grand Prix’**

Given that ICUs come in at, by definition, a critical point in the life-saving process, Chiche makes an interesting comparison.

“Imagine,” he says, “that hospital units are different cars in a parking lot. Intensive care is the Formula One car. It is very quick, hi-tech, highly dangerous and expensive. It also requires precision, passion, tenacity and dedication. It works properly only if you are able to work as a team and improve processes. Putting the best driver in the driver’s seat is not enough; you need to make sure that the best team will change the tyres, refuel the car and put him back on track.”

He also feels that “most people don’t understand what intensive care it is – although they all recognize a casualty ward”.

“So it is no wonder that we are under-resourced. We are already talking about very high cost, but need even more resources if we are going to improve safety. If the necessary resources were in place, this would impact very, very significantly on morbidity rates.”

## Impact of the Declaration

In relation to the declaration, to be signed ahead of the congress, Chiche is clear about its aims: “This is really the start of an important process, which will hopefully continue over months and years. For example, it could help at individual level through promotion of continuous medical education and offering better access to training. Above that, we will also see improvements at single ICU, national and international levels.”

But even basic matters can be tackled by a round-table approach involving all the stakeholders. “What we really want to achieve [through the Declaration] is to sit- down [the stakeholders] to see how we can make things better. For example, when there are four or five brands that manufacture, say, a ventilator, the same ventilatory mode may come with distinct acronyms. You need to be quite well-educated to understand that they are essentially the same thing. This causes unnecessary confusion, so let’s get them to agree on a common acronym.”

“On top of this, we want the commitment of international and national societies to dedicate money to improving collaboration in research - as it is emphatically shown that research improves patient safety.

**More information** on the ESICM is available at [www.esicm.org](http://www.esicm.org)

**Biography:** Frenchman **Prof Jean-Daniel Chiche** trained at Paris and Liège Universities, where he specialised in anesthesia and intensive care medicine, and obtained a PhD after a 3-year research fellowship at the Massachusetts General Hospital (Harvard Medical School) in Boston. He is currently Professor of Critical Care Medicine at the Cochin Hospital in Paris. His clinical interest lies in the field of acute respiratory failure and sepsis. He also holds an appointment as Research Director at the Cochin Institute (INSERM U567) where he develops an independent research program spanning various aspects of the biology of Toll-like receptors, innate immunity and variability of the inflammatory response.

His studies on genetic predisposition to severe infections (including pneumonia) as well as his expertise in the management of acute respiratory distress syndrome have recently led him to collaborate with the WHO on management guidelines for patients with avian influenza infection

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Note to editors:

More information on the ESICM is available at [www.esicm.org](http://www.esicm.org). For fact sheets and backgrounders visit <http://patientsafety.esicm.org/press.asp>

To arrange interviews or obtain further features and latest updates on the Declaration of Vienna, please contact our media partner Tony Mallett, on 0032 472 280 878. Email [tony.mallett@gmail.com](mailto:tony.mallett@gmail.com)