The next wave:

"physician extenders"?

hey're potentially an old solution to a very current problem. In fact, their existence can be traced back to Canada's involvement in the 1950s Korean conflict, and they may prove to be a partial answer to systemic challenges, such as how to improve patient care while providing timely and efficient access to health care providers.

They're called physician assistants, or what some describe as "physician extenders," because they absorb portions of a doctor's workload that don't require high degrees of medical expertise. Canada, the United Kingdom, Australia and Holland are among a host of nations now examining more widespread use of physician assistants, taking their lead from the US, where assistants have been working for 40 years.

Although they are now a fixture on the US health care scene, their use and training didn't become common until after Dr. Eugene Stead selected 4 Navy corpsmen in 1965 to inaugurate the first Physician Assistant Program at Duke University in North Carolina. Stead based his curriculum on the fast-track training provided to doctors during World War II.

That small start has since become a flood. Today, more than 130 accredited US programs graduate some 4500 physician assistants annually. Curricula average 26 months and involve a measure of classroom and lab training in basic medical and behavioural sciences, followed by clinical rotations in surgery, pediatrics, obstetrics and gynecology, internal, geriatric and emergency medicine. No internship or residency is involved.

The assistants work at all times under the supervision of a licensed physician. According to the Canadian Association of Physician Assistants, an assistant's responsibilities can vary widely depending on such factors as experience and clinical setting. In some cases, assistants may conduct examinations, diagnose and treat illness, order and interpret tests, take medical histories, write prescriptions for some drugs, assist in surgery or even perform emergency procedures. Typically they handle more "routine" cases.



The US military began training physician assistants in 1965; there are now 63 600 in both civilian and military practice.

Some 63 600 assistants now practise in the US, where they are the fourth fastest growing profession. The US Bureau of Labour Statistics projects 50% growth in their numbers by 2014.

By contrast, there are only 150 physician assistants in Canada, and most of those are in the military. The Canadian Forces Medical Services School in Borden, Ont., is the only Canadian educational institution now training physician assistants, with roughly 2 dozen graduates annually.

But the civilian medical field is slowly warming to the notion of physician assistants. Manitoba has regulated the use of "clinical assistants" since 2002. These professionals work primarily in surgical theatres (pre-op through post-op), although "they also work in medical areas, such as neurology and cardiology," says Chief Petty Officer 2nd Class Marc Pellerin, the communication director for the Canadian Association of Physician Assistants.

The Manitoba Medical Association recently gave its blessing to creating Canada's second physician assistants' training program, a 26-month, masterslevel course at the University of Manitoba. It is scheduled to accept its first students in September 2008.

"They'll be modelling their program on ours," Pellerin says. "So it will be uniform with what we're doing at the military school."

In Ontario, a 1-year pilot to evaluate the use of physician assistants in 5 hospital emergency departments (Brockville, Cambridge, Guelph, Quinte/Trenton and Timmins) is nearing completion, and a larger initiative is just ramping up. It will place, and test, some 50 assistants in internal medicine, emergency, orthopedic surgery, complex continuing care and rehabilitation settings in 25 hospitals. Among candidates being assessed are international medical graduates. Ultimately, it's hoped the program's reach can be extended to community health centres and family practices.

Coordinated by the Ontario Hospital Association, the Ontario Medical Association and the Ministry of Health and Long-Term Care, the initiative is part of HealthForceOntario, the province's health care human resources strategy, which includes a commitment to launch a post-secondary physician assistant training program.

"Several universities, and now other provincial ministries, are expressing interest in this multidisciplinary team approach," says Canadian Association of Physician Assistants Vice-President Master Warrant Officer Rob Bruyns. "They all want to study our curriculum as a template — we could be looking at one large uniform profession. But for now, all eyes are on the Ontario program to see how it unfolds." — David McCabe, Ottawa

DOI:10.1503/cmaj.071041

WHO regulations to prevent spread of infectious disease

nder new WHO regulations aimed at preventing the spread of infectious diseases, all 193 member states must report within 24 hours of assessment any disease or event that may constitute a public health emergency of international concern.

The new International Health Regulations (2005) were officially adopted on June 15, 2007, within the 2-year target set by the 58th World Health Assembly

in May 2005. They replace the 1969 regulations, which only pertained to 3 diseases (cholera, plague and yellow fever) and did little to protect global health security during disease outbreaks, such as SARS, and disasters, such as Chernobyl. According to WHO, the new regulations are much broader and "cover existing, new and re-emerging diseases, including emergencies caused by non-infectious disease agents." The aim is to ensure global health security by a collective response to local problems.

WHO Communications Adviser Gregory Härtl told *CMAJ* that the new regulations "cover any event that has a potential to constitute a public health emergency of international concern, and so include, for example, chemical events and/or foodborne events, which cause a public health risk that may be trans-border."

Under the new regulations, member states must respond to the WHO's request for verification of information, irrespective of its source or origins. Member states are required to immediately assess their core capabilities, and strengthen the pertinent parts so that they can detect, diagnose, notify and adopt appropriate control and prevention measures. Member states must also designate airports, seaports and ground crossings, where diseases can enter or exit a country.

"With well-known international criteria now available for the identification and assessment of international public health threats, and the new requirement for national surveillance and response systems, the implementation of [the regulations] will make the world more transparent and better prepared to respond to public health threats, including the prevention of undue restrictions on travel or trade," Härtl says.

"Given the emergence of infectious diseases like SARS, these regulations are substantially significant," says Bikram Saha, assistant professor of medicine, Midnapore Medical College and Hospital, West Bengal, India. "However, the regulations should be implemented properly," he told *CMAJ*. — Sanjit Bagchi MD, Kolkata, India

DOI:10.1503/cmaj.071072

Libya negotiates deal for release of doctor, 5 nurses

fter 8 years of imprisonment, torture and maltreatment in Libya for allegedly infecting more than 400 children with HIV, purportedly in collusion with the CIA and Israeli secret service, 5 Bulgarian nurses and a Palestinian-born doctor were released on July 24. The 6 have repeatedly denied the charges.

Libya has been internationally criticized for its disregard for scientific evidence, human rights and due process. As early as 2003, published molecular and epidemiological analyses provided compelling scientific evidence that exonerated the 6. Results of 2 international reports, filed respectively by the WHO and a scientific duo hired by the Libyan government itself — including Luc Montagnier, the co-discoverer of HIV — confirmed that the outbreak was nosocomial.

Loath to acknowledge a home-



Palestinian-born Bulgarian doctor Ashraf al-Hazouz hugs his mother at a news conference in Sofia, Bulgaria.

grown AIDS epidemic that continues to spread due to poor hygiene practices and crumbling infrastructure, Libyan leaders have been accused in editorials in leading journals of using the foreign workers as scapegoats.

The physician and nurses were ultimately released by Libyan leader Colonel Muammar el-Qaddafi on the basis of a 1984 accord between Bulgaria and Libya, which stipulates that citizens of one country convicted of crimes in the other can serve their sentences in their own nation. Cécilia Sarkozy, the wife of France's president, is said to have played a crucial diplomatic role in negotiating the release, thereby clinching a 3-year diplomatic process initiated by the European Union and taken forward by Tony Blair, the former British prime minister.

After their release, the 6 went to Sofia, Bulgaria, where they were promptly pardoned by President Georgi Parvan.

The release came with a price tag. The European Union promised medical support and US\$426 million for the families of the infected children. The Union has also offered Libya trade agreements, scholarships and visas for travelling in Europe. France has expressed its intention to forge new economic ties with Libya, including helping to build superhighways and trains and develop new civil engineering, aerospace and defense projects.

The seemingly cushy terms of this overdue release have sparked criticism. Susannah Sirkin, deputy director of the Boston-based Physicians for Human Rights has pointed out that "the lives of these nurses and medic were literally ransomed for \$400 million."

Responding further to Libya's refusal to acknowledge concrete scientific and medical evidence during its trial of the health workers, Sirkin stated, "If this is not addressed, it will have a chilling effect on the willingness of people to enter the health professions and serve in areas where health care needs are great. And the health care in Libya will be no safer than it was when the children were infected." — Tavé van Zyl, *CMAJ*

DOI:10.1503/cmaj.071075