

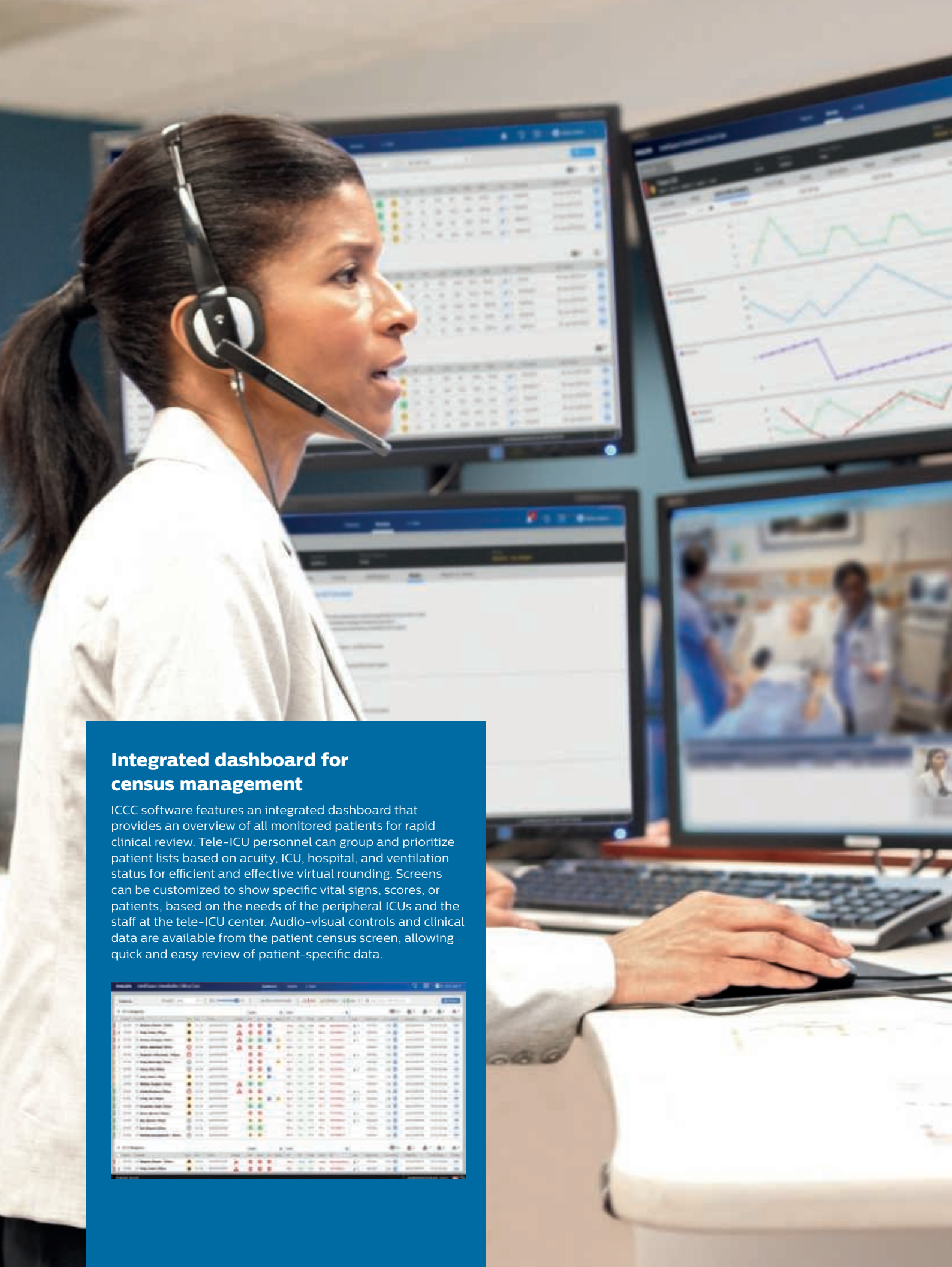
A doctor in a white lab coat is leaning forward, looking intently at a telehealth specialist in a purple shirt. The specialist is wearing a headset and gesturing with his hand. They are in a control room with multiple computer monitors displaying data and charts. The background shows a window with a view of a city.

PHILIPS

IntelliSpace Consultative
Critical Care

Telehealth

Outstanding **remote support** for critical care environments



Integrated dashboard for census management

ICCC software features an integrated dashboard that provides an overview of all monitored patients for rapid clinical review. Tele-ICU personnel can group and prioritize patient lists based on acuity, ICU, hospital, and ventilation status for efficient and effective virtual rounding. Screens can be customized to show specific vital signs, scores, or patients, based on the needs of the peripheral ICUs and the staff at the tele-ICU center. Audio-visual controls and clinical data are available from the patient census screen, allowing quick and easy review of patient-specific data.

ICU	Room	Acuity	Vitals	Respiratory	Neuro	Other
ICU 1	101	High	120/80	18	3	1
ICU 2	202	Low	110/70	12	2	0
ICU 3	303	Medium	130/90	20	4	2
ICU 4	404	High	140/100	25	5	3
ICU 5	505	Low	100/60	10	1	0
ICU 6	606	Medium	120/80	15	3	1
ICU 7	707	High	150/110	30	6	4
ICU 8	808	Low	90/50	8	1	0
ICU 9	909	Medium	110/70	12	2	1
ICU 10	1010	High	130/90	18	4	2

Expanding the reach of care

Intensive Care Units (ICUs) are facing increasing challenges. More patients have chronic conditions that require monitoring around the clock, such as cancer and coronary heart disorders. An aging population is contributing to the need for additional critical care beds, stressing resources. In addition, the number of qualified specialists often falls short of demand. Particularly in remote geographies and secondary hospitals, the critical care specialist shortage can make it necessary to transfer patients to receive appropriate levels of care.

IntelliSpace Consultative Critical Care (ICCC) is designed to address these challenges. A practical, cost-effective approach to critical care, ICCC enables the creation of tele-ICU facilities that use remote monitoring and consultation to support high-quality patient care.

The ICCC solution

ICCC provides remote monitoring support in the critical care environment through its ability to integrate, aggregate, and present meaningful clinical data.

With the ICCC model, critical care specialists and other clinicians are located at a centralized tele-ICU center, which could be an off-site location or a central hospital. The tele-ICU staff continuously monitors patients in multiple, geographically distributed ICUs, supporting local clinicians by providing additional patient oversight, clinical collaboration, and promoting evidence-based standards of care.

Clinicians at the tele-ICU center have access to the same patient data that is available at the bedside, including vital signs data and waveforms. In addition, they can view data from CIS or EMR, including patient history, lab results, admissions information, and medication orders. The ICCC software aggregates and presents additional data that includes graphical trends of the ventilator/arterial blood gas (ABG) recordings, I/O data, clinical decision support indexes, medication history, and caregiver notes. Alarm data notifications are generated in the tele-ICU when a patient's vital signs fall outside normal levels, so off-site clinicians can inform caregivers on-site of the need for vigilance and possible intervention.

There is a growing shortage of critical care specialists.



In the United States¹, the shortfall in critical care specialist hours is expected to reach



-22%
by 2020



-35%
by 2030

Interdisciplinary collaboration regardless of location

An extra set of eyes on patient status data. Proactive notification and escalation when that data indicates a concern. The ability to consult other clinicians when determining patient care. These are among the benefits a tele-ICU center provides to a remote ICU.

Particularly when census is high, or in the evenings or on weekends when there may be fewer on-site staff, the tele-ICU center provides an expanded care team and peace of mind.

Supporting clinical best practices

Even when ICUs are fully staffed, the need to put patient care first can make it difficult to carry out protocols and adhere to accepted standards. In these cases, the tele-ICU center can support bedside staff by encouraging systematic, consistent application of clinical best practices and goal-directed therapies.

Around-the-clock access and two-way communication

Bidirectional audio-visual communication allows remote clinicians to discuss patient condition and care plans with bedside caregivers, patients and their families, and provides access for visual examination of the patient.

Enabling critical care close to home

Location should not be a barrier to care. However, due to a lack of specialist clinical expertise in some areas, patients are sometimes transferred far from home to receive care. If patients are able to remain in their communities during treatment, they will save transportation costs and ease the burden on family and friends, who may find it difficult or impossible to visit a hospital far from home.

Tele-ICU centers bring expertise from where it is available to where it is needed, allowing patients to remain in familiar surroundings while still having full access to an interdisciplinary team of experts.



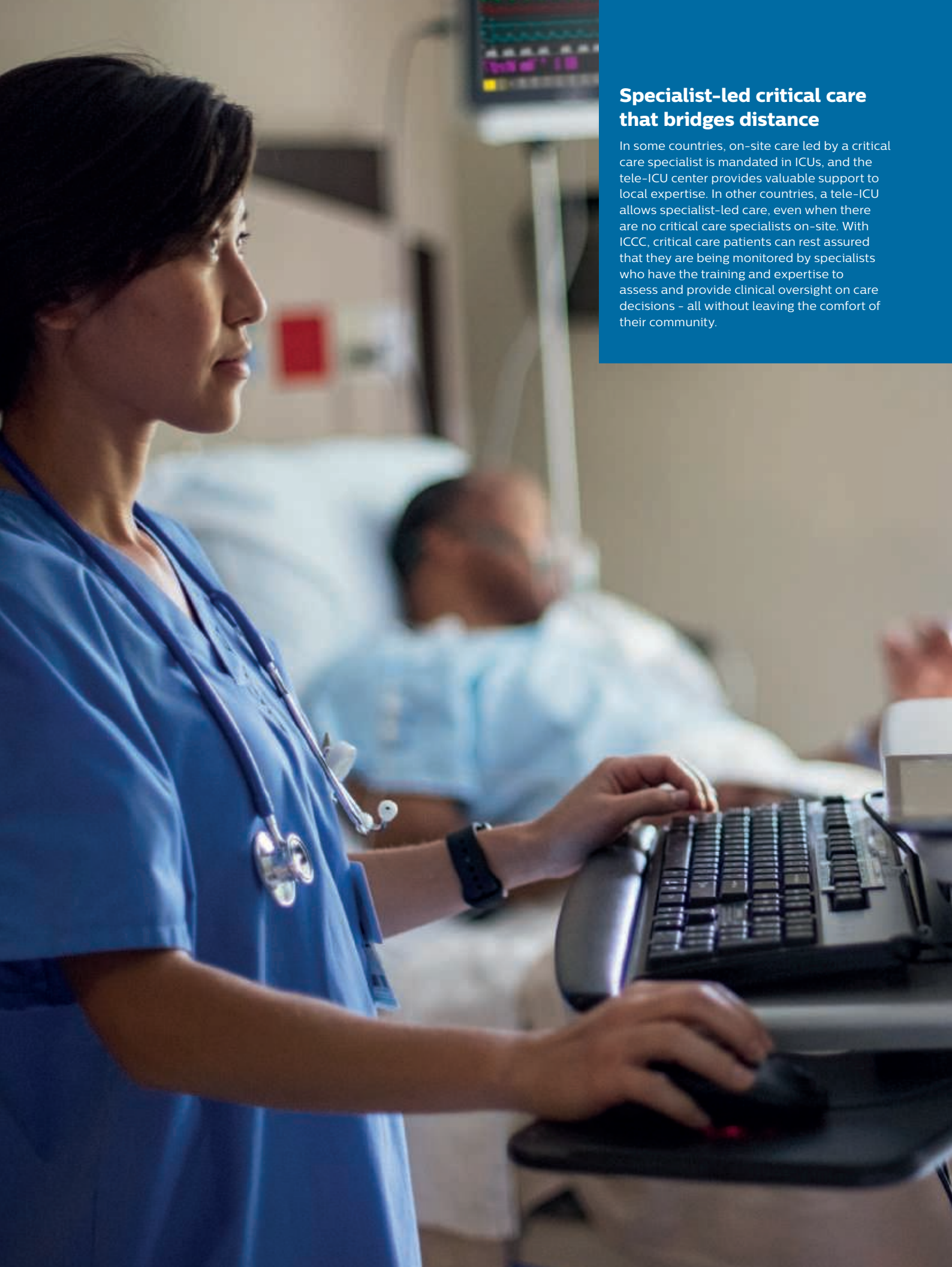
Tablet application informs clinicians on the go

Both remote and bedside critical care specialists, as well as other caregivers, can take advantage of ICCC technology to view vital signs via a tablet application that synchronizes with the tele-ICU system. This allows them to check in on patients remotely even when on the move, to respond to deteriorating patient condition when away from the patient's bedside, and to participate in video conferences.



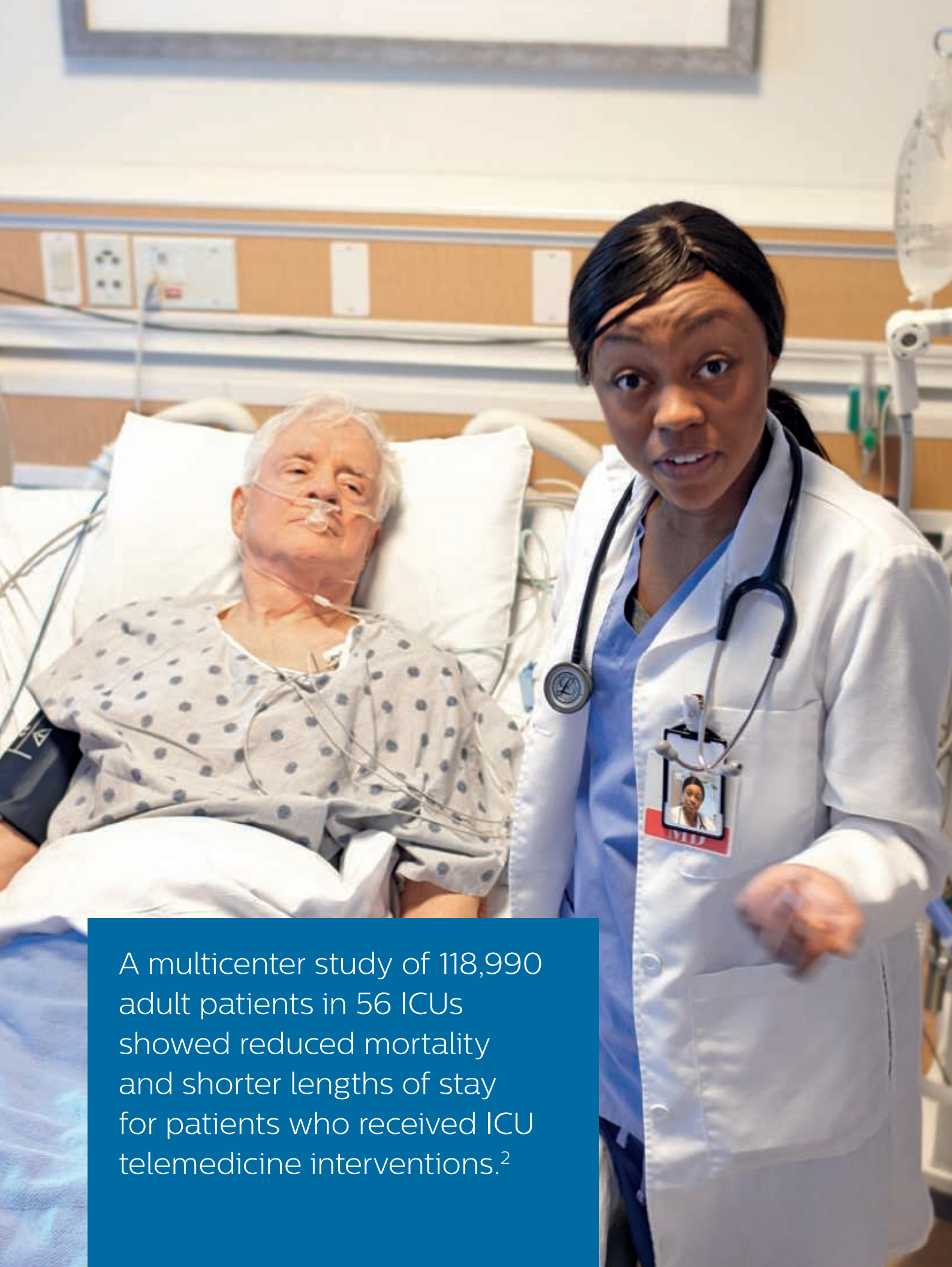
Scores support patient assessment

From the tele-ICU center, critical care specialists view scores including Early Deterioration Indicator (EDI), Early Warning Scores (EWS), Glasgow Coma Scale (GCS), Sequential Organ Failure Assessment (SOFA) and Simplified Acute Physiology Score II (SAPS II) for data that helps classify risk and aids assessment of clinical conditions.



Specialist-led critical care that bridges distance

In some countries, on-site care led by a critical care specialist is mandated in ICUs, and the tele-ICU center provides valuable support to local expertise. In other countries, a tele-ICU allows specialist-led care, even when there are no critical care specialists on-site. With ICC, critical care patients can rest assured that they are being monitored by specialists who have the training and expertise to assess and provide clinical oversight on care decisions - all without leaving the comfort of their community.

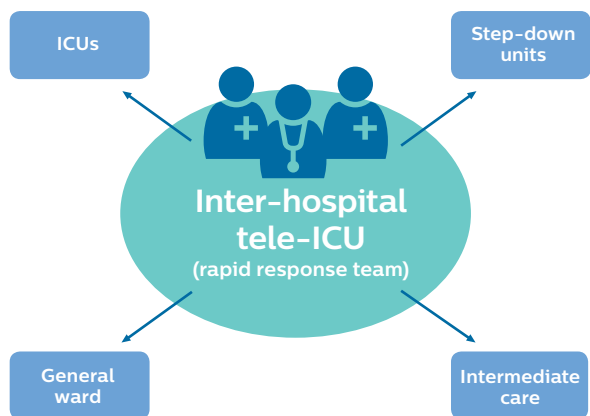
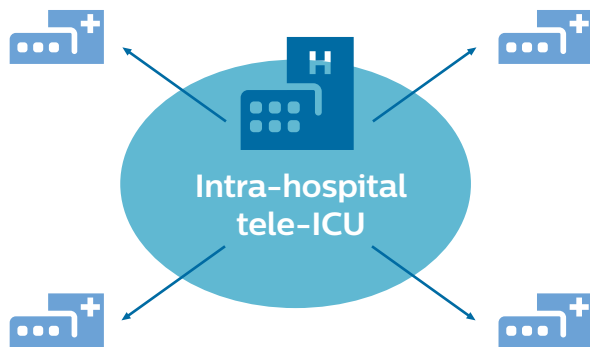
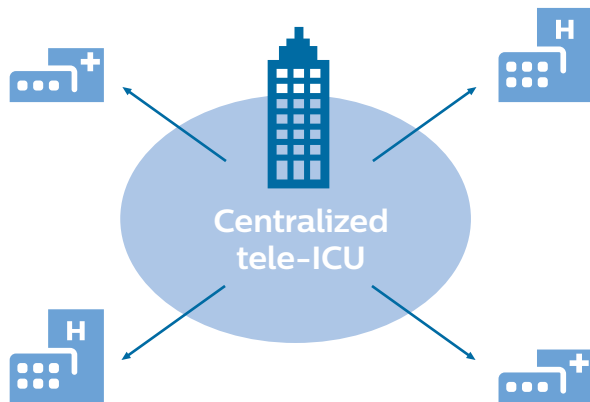


A multicenter study of 118,990 adult patients in 56 ICUs showed reduced mortality and shorter lengths of stay for patients who received ICU telemedicine interventions.²

Adaptable configurations

support your needs

ICCC can be tailored to meet local needs. Scalable and flexible, it supports a variety of configurations.



Solution requirements

With Philips technology and professional consulting services on hand to help, setting up a tele-ICU program is straightforward. The system requires:

- A fully equipped tele-ICU center with IntelliSpace Consultative Critical Care
- Validated Philips bedside monitors in the peripheral ICU
- Digital patient charting and documentation through a PDMS/ CIS (e.g. IntelliSpace Critical Care and Anesthesia), or EMR
- Internet connectivity between the tele-ICU center and each peripheral hospital (a dedicated line is recommended)
- One cart with an audiovisual unit, and an independent power source, for every 4-5 beds in each ICU

Tele-ICU benefits

- Interdisciplinary collaboration
- Oversight of standardization and best practices
- Around-the-clock access to expert care
- Ability to scale to patient census
- Care close to home

1. Angus DC, Kelley MA, et al.
Committee on Manpower for Pulmonary and Critical Care Societies (COMPACCS). Caring for the critically ill patient. Current and projected workforce requirements for care of the critically ill and patients with pulmonary disease: can we meet the requirements of an aging population? JAMA. 2000 Dec 6;284(21):2762-70.
2. Lilly CM, McLaughlin JM, et al.
A Multicenter Study of ICU Telemedicine Reengineering of Adult Critical Care. Chest. 2014 March; 145(3):500-507.

