



**PHILIPS**

Treatment

## Mangiagalli Clinic, Milan

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# A benchmark for neonatal intensive care

Around 900 children each year are born in the Mangiagalli Clinic, part of Ospedale Maggiore General Hospital, the oldest hospital in Milan. The Neonatology and Neonatal Intensive Care Unit at Mangiagalli is at the forefront of its field in Italy and Europe, thanks to its holistic approach to “family-centered” care. It humanizes care and put an emphasis on improving the wellbeing and surroundings of the children who are treated there and their parents.

The hospital is constantly looking for innovations and technologies to improve its therapies and support its values. Philips, as a technology partner, perfectly understood the need to balance the technological requirements of the unit with the philosophy of humanizing care. We’ve done this by installing monitors that allow for constant updates on the babies’ condition, giving parents and hospital staff more time to focus on the soft side of the therapy. Additionally, we created a custom-built lighting system and redesigned the lactation room.

### Customer’s need

Provide the best possible care to premature babies and their parents.

### Our solution

Philips IntelliVue monitors were installed with a lighting LED solution on the baby cots and in the lactation room, which was completed with the donation of Avent breast milk kits.

### The results

- Creates a completely paperless neonatal unit;
- Integrates fully with existing hospital systems and workflows, freeing up staff time;
- Monitoring provided by the IntelliVue system creates little or no disruption to the baby;
- Creates an environment that’s as much about emotional wellbeing as practical care;
- The Mangiagalli Clinic is a benchmark for the industry and opened the door to the acquisition of new clients for this kind of integrated solution.

Globally, every year, an estimated

**15 million babies  
are born preterm**

(before 37 completed weeks of gestation)<sup>1</sup>



<sup>1</sup> <http://www.who.int/mediacentre/factsheets/fs363/en/>

### About Mangiagalli Clinic

The Mangiagalli Clinic in Milan, Italy, is part of the Ospedale Maggiore General Hospital, the largest maternity clinic in Italy. The Neonatal Operative Unit, managed by Professor Fabio Mosca, looks after newborns in a critical condition and is the largest neonatal treatment unit in Italy, with 23 cots in intensive care and 33 cots in intermediate care. Of the estimated 900 newborns each year, more than one third require ventilatory support.



### Next steps

The integrated solutions for neonatal intensive care has helped Philips enter new markets and new deals are closed as a result.

### Monitoring baby's health

In a natural birth, the bond between parent and child is established immediately through physical contact and everyday life. Unfortunately this does not happen with a premature baby because of the fragility of the child and the necessity of medical care. In this scenario monitors become a bond between the child and its parents.

The installation of Philips IntelliVue systems within the Neonatal Operative Unit and the Neonatal Intensive Care Unit at the Mangiagalli Clinic allows staff to monitor vital signs of the baby with no interruptions, not even while moving the incubators, thanks to a rechargeable battery. The simple graphical interface on the IntelliVue system also allows parents to learn immediately how to monitor the health of their child.

The IntelliVue system saves staff time by analyzing and reworking the data plotted in graphs and historical trends. It also integrates fully with existing hospital systems and workflows. This frees up staff time to devote to the more human side of healthcare.

"Philips is one of the market leaders and I chose the IntelliVue system after careful consideration of other monitoring systems," explained Professor Fabio Mosca, Director of Neonatology and Neonatal Intensive Care at the Mangiagalli Clinic. "Different factors were involved in my evaluation: the company's professionalism, its considerable background in the field of monitoring, and in particular, neonatal monitoring; the fact that the modular system can be implemented and interfaced with the one already in use in the department; and the pleasing esthetics. The system also has a monitoring center that enables physicians to look after 23 cots from one room. This has improved logistics, which means we have optimized space."

### A new lighting system that simulate the circadian cycle

Inside the womb, babies are reached by a small amount of light, essential for the baby itself to develop the circadian rhythms (physical, mental and behavioral changes that follow a roughly 24-hour cycle). In a premature birth, this process is suddenly interrupted and the child is exposed to a situation of perpetual darkness or bright light inside the incubator.

To create an environment for the baby that is as similar as possible to the womb, Philips has designed a custom lighting system. This consists of an LED lamp, adjustable in intensity and independent from the others, installed above each incubator and workstation. In addition, the whole system follows the circadian cycle of sunlight.

### A lactation room made to measure for mum's relaxation

Philips has also redesigned the entire "lactation room". The room performs not only a physical function, but a mental one – putting the emphasis not just on the practical requirements of baby feeding but also on the emotional needs of the parents and babies. Fulfilling all functional requirements, Philips has managed to recreate an environment where mothers can relax, meet and rebalance with a lighting system that allows them to adjust the color of light according to the needs of the mother – red to energize, blue to relax etc. The layout and the esthetic of the room has been completely redesigned in order to better use the space, solve problems of overcrowding and make mothers feel they are in an environment which is completely removed from the rest of the hospital.

Philips has also provided breast pumps, sterilizers and accessories kits by Avent, which are to be used in the room and also taken home to support a continuum of care from the hospital to home.

### Key to success

A shared vision between Philips and Mangiagalli Clinic to create a "family-centered" environment for premature babies and their parents, that focuses not just on the practical needs of care, but also on the emotional needs.

