

Improve safety and reduce errors with energy-efficient lighting.

While better lighting can improve the safety and operations of a variety of industries and businesses, it can be a matter of life and death. If hospitals took greater measures to eliminate preventable medical errors, at least 44,000 Americans lives could be saved every year, according to the Institute of Medicine. Simply seeing better can help reduce both preventable errors and Adverse Drug Events (ADEs), which result from injectable medication errors.

As nurses sometimes contended with understaffed teams and stressful work environments, they must perform more tasks at a faster pace. Improved lighting can help them see better and complete their work with greater accuracy. In fact, a brighter work area can lead to reduced errors in medication dispensation, according to a report from The Center for Health Design. Plus, cooler color temperatures (bluer) can enhance areas that require visual acuity with detailed tasks. What light can do both of these things? LEDs are a logical choice. On top of their color quality, they are durable, long lasting and feature instant-on performance — all while consuming 75 percent less energy than incandescent bulbs.

If you're not convinced better lighting can really reduce ADEs and lead to better patient care, take a look at these results:

- Prescription-filling accuracy improved significantly when lighting levels in a busy outpatient pharmacy were increased from 45 to 146 foot-candles.
- Pharmacists who rated lighting levels as least adequate detected 38 percent more errors when filling prescriptions.
- As visual fatigue increases over a shift, more light is needed. Pharmacists using task lights to increase illumination had a 10.7 percent reduction in product verification errors.

Although adequate lighting is especially important in healthcare settings, it's also critical in manufacturing facilities. A lighting retrofit typically provides improved lumen distribution and enhanced color quality, which can reduce the chance of workers being struck by an object, tripping or falling. The National Safety Council estimates that the average cost of a workplace medically consulted injury is \$36,000 in medical and lost-time expenses. This occurs at a rate of one incident per roughly 30 manufacturing workers per year. If a lighting retrofit could eliminate one incident every other year, the non-utility cost savings for a 100-employee company would average \$18,000 per year!

In addition to improved safety, better lighting can also lead to reduced scrap. The median cost of scrap and rework costs for a manufacturing facility is 2 percent of sales, which represents \$1 million in scrap cost for \$50 million of sales revenue. It's reasonable to assume that a lighting upgrade could reduce scrap and rework by 5 percent. That results in \$50,000 of bottom-line savings from a lighting upgrade.

Sources: Reports from *American Journal of Health-System Pharmacy* and *U.S. Pharmacist*

Learn more about the benefits of lighting enhancements and begin the upgrade process at your facility. Contact your account manager, call 1-800-787-1706, or email efficiency@nationalgrid.com.