

SUPPLEMENTARY ADVISORY

Update on Use of Color-Coded Patient Wristbands

In December 2005, the Pennsylvania Patient Safety Reporting System (PA-PSRS) identified risks associated with using color-coded patient wristbands to communicate clinical information.¹ In a PA-PSRS survey, while nearly four out of five respondents' facilities used color-coded patient wristbands, there is little consistency among facilities in the meanings associated with different colors.

In one case, a patient was nearly not resuscitated during cardiopulmonary arrest because she was incorrectly designated "DNR" with a colored wristband by a nurse who worked in multiple facilities and was confused about the meanings of different colors. The lack of consistency in wristband meanings and in how they are applied presents problems when patients are transferred among facilities and when patients are cared for by clinicians who work in multiple facilities.

Since that *Advisory* was released, a group of healthcare organizations in northeastern and central Pennsylvania have started a grassroots effort to meet the challenge of making this practice safer. Facilities participating in The Color of Safety Task Force (see Table 1) are implementing and standardizing a number of safe practices across their facilities.

The Color of Safety Task Force started when Allied Services Rehabilitation Hospital (ASRH) in Scranton

Table 1. Pennsylvania Healthcare Organizations Involved in the Color of Safety Task Force

- Allied Services Rehabilitation Hospital, Scranton
- Community Medical Center, Scranton
- Holy Spirit Health System, Camp Hill
- John Heinz Institute (Allied Services), Wilkes-Barre
- Marian Community Hospital, Carbondale
- Mercy Hospital, Scranton
- Mid-Valley Hospital, Peckville
- Moses Taylor Hospital, Scranton
- Pocono Medical Center, East Stroudsburg
- Tyler Memorial Hospital, Tuckhannock
- Wayne Memorial Hospital, Honesdale

ton contacted the acute care hospitals that refer patients to them and those to which they transfer patients to see whether they could standardize this practice on a regional basis. Bonnie Haluska, Associate Vice President at ASRH and Chair of the Task Force, says the process has worked because healthcare providers saw a patient safety issue that could only be resolved through cooperation.

Once the Task Force was established, news of their effort spread by word of mouth and sparked the

Visit the Patient Safety Authority web site at: www.psa.state.pa.us for the Colored Wristband Toolkit, which includes:

- An Implementation Manual developed by the Color of Safety Task Force
- A brochure for provider and patient education
- Presentations that can be used for educating staff and community members
- Relevant Advisories from PA-PSRS
- A related video from the Food and Drug Administration's *Patient Safety News* highlighting this issue.

Highlights

1. A December 2005 *Patient Safety Advisory* highlighted the risks associated with using color-coded patient wristbands to communicate important medical information.
2. A group of hospitals in eastern and central Pennsylvania formed a Color of Safety Task Force to standardize the use and meanings of these patient wristbands.
3. The Task Force developed a detailed Implementation Manual that can be adopted or adapted by other healthcare organizations.
4. The Task Force has made this manual and other implementation tools available via the Patient Safety Authority web site.

Figure 1. Patient Wristband Colors and Meanings Established by the Color of Safety Task Force

Band Color	Communicates
Red	Allergy
Yellow	Fall Risk
Green	Latex Allergy
Blue	DNR
Pink	Restricted Extremity

interest of facilities in central and western Pennsylvania and even from other states. The Patient Safety Authority has also been contacted by other state and national patient safety organizations on this issue.

Safe Practices

Because there is no evidence either for or against the effectiveness of color codes to communicate clinical information, PA-PSRS does not advocate that healthcare facilities begin this practice. However, if your facility already uses these wristbands, you may wish to follow the model developed by the Color of Safety Task Force.

Among the safe practices Task Force hospitals have adopted are:

- Limiting the spectrum of color-coded wristbands and standardizing the meanings associated with each color (see Figure 1).
- Purchasing wristbands with preprinted, embossed text, rather than relying solely on color to communicate the meaning.
- Avoiding handwriting on the band except in emergent situations.
- Allowing only nurses to apply or remove wristbands.
- Labels or stickers used in the medical record to communicate the same risk factors as colored wristbands will use corresponding colors and text.
- Prohibiting non-healthcare, "community" wristbands in the healthcare setting, with nurses removing them (or covering them, when patients do not consent to removal) on admission.

- Educating patients and their families on the risks associated with community bands and on the meanings of the colored wristbands applied in the healthcare setting.

Implementation

The Task Force has outlined a five-part implementation strategy that involves: equipment selection and purchase, facility-specific documentation, staff orientation and training, patient education, and community involvement. The Task Force has

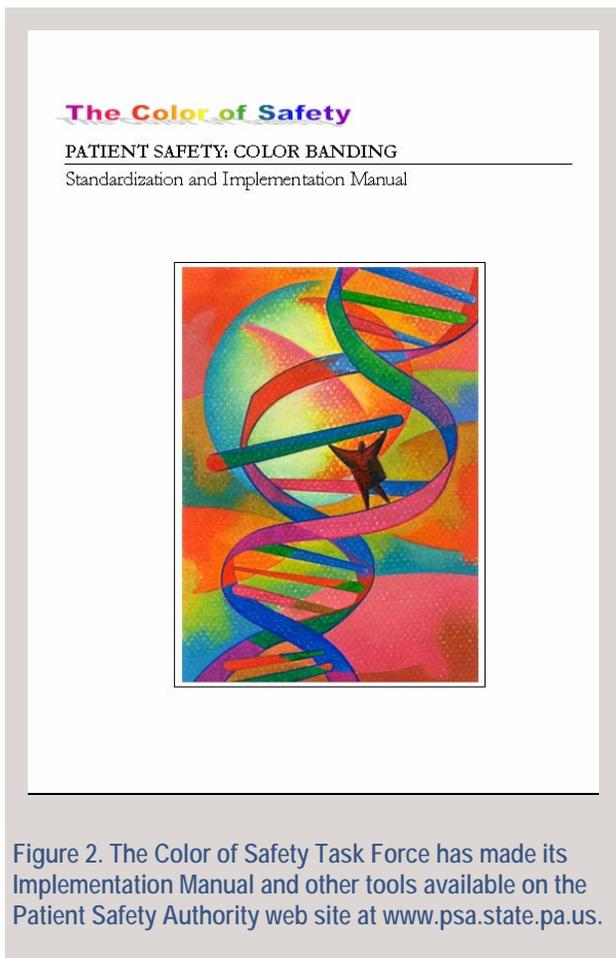


Figure 2. The Color of Safety Task Force has made its Implementation Manual and other tools available on the Patient Safety Authority web site at www.psa.state.pa.us.

developed a detailed Implementation Manual (Figure 2), which they are making available through the Patient Safety Authority web site at www.psa.state.pa.us, under Advisories. The manual is a self-contained toolkit that any healthcare facility can adopt or adapt.

Components of the Implementation Manual include:

- A detailed policy on color-coded patient wristbands.
- An implementation plan outlining requirements, specific actions, and responsible parties.
- A refusal of consent form for patients who refuse to remove community wristbands or to wear wristbands applied by the healthcare facility.
- A form that provides an alternative means of communicating alerts for patients who cannot or will not wear wristbands applied by the healthcare facility.
- A curriculum for educating healthcare facility staff about the change in policy and procedure, and a competency checklist.
- Detailed procurement information for purchasing wristbands, as well as matching Kardex labels, that comply with the standardized policy.
- A poster that can be used to reinforce the relationships between the color-coded wristbands and their meanings.

Patient and Community Involvement

The Color of Safety Task Force has taken a number of steps to include patients, their families, and the community in solving this patient safety problem.

One section of the Implementation Manual includes patient education both at admission and discharge. On admission, the patient is educated about the reason for applying the wristbands, the meanings of the different wristbands, the need to wear the wristbands throughout their stay, and the risks associated with community bands that could be confused with facility-applied wristbands. On discharge, patients are instructed to remove the wristbands at home. For transfers to other healthcare settings, the wristbands are not removed, and associated risks are also documented on the transfer record.

The manual includes a patient/family brochure, which any healthcare facility can customize with its own logo. This can be used in patient education and left at the bedside for reinforcement.

The manual also includes sample letters which can be sent to community leaders, manufacturers of charity or other community wristbands, and other healthcare providers (such as long-term care facilities) to advise them of the risks these pose for individuals who may interact with the healthcare system.

Conclusion

The PA-PSRS December 2005 Supplementary Advisory "Use of Color Coded Wristbands Creates Unnecessary Risk," along with Pennsylvania facilities' response to it, has heightened awareness of this problem. Since this initial *Advisory* was released, reporting of wristband-related problems to PA-PSRS has increased by more than 40%.

The Pennsylvania healthcare facilities participating in the Color of Safety Task Force have "banded together" to address these risks and have provided a roadmap for other facilities to follow.

Notes

1. Pennsylvania Patient Safety Reporting System (PA-PSRS). Color-coded patient wristbands create unnecessary risk. 14 Dec 2005;2(S2):1-4.



An Independent Agency of the Commonwealth of Pennsylvania

The Patient Safety Authority is an independent state agency created by Act 13 of 2002, the Medical Care Availability and Reduction of Error (“Mcare”) Act. Consistent with Act 13, ECRI, as contractor for the PA-PSRS program, is issuing this newsletter to advise medical facilities of immediate changes that can be instituted to reduce serious events and incidents. For more information about the PA-PSRS program or the Patient Safety Authority, see the Authority’s website at www.psa.state.pa.us.



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The Institute for Safe Medication Practices (ISMP) is an independent, nonprofit organization dedicated solely to medication error prevention and safe medication use. ISMP provides recommendations for the safe use of medications to the healthcare community including healthcare professionals, government agencies, accrediting organizations, and consumers. ISMP’s efforts are built on a non-punitive approach and systems-based solutions.