Workarounds are actions performed by an individual to circumvent or temporarily fix real or perceived workflow hindrances or system design flaws or to cope with exceptional patient care circumstances. The intent of a workaround is to achieve a healthcare delivery goal or achieve it more readily or efficiently.

Workarounds are ubiquitous in healthcare delivery, and numerous events reported through the Pennsylvania Patient Safety Reporting System (PA-PSRS) include descriptions of workarounds. Examples of workarounds in PA-PSRS reports include medication dosages based on estimated rather than actual patient weights; consents for treatment obtained from surrogates under circumstances that make it difficult to obtain consent directly from the patient; and substitutions of equipment, medication, or other resources because of shortages. Some event report narratives describe only the immediate problem, but others address underlying causes. In some instances, the patient was well served by the workaround, and in others, the workaround created a hazard for the patient.

Examples of Workarounds

The following PA-PSRS narratives describe workarounds that involve similar actions with varying consequences:

A nurse was unable to scan the barcode before administering a medication because the barcode was incomplete. Pharmacy was called, and the nurse was instructed to type in the patient's name and medical record number and to document the confirmation of the medication manually.

This “first order” workaround benefited the patient, but did not address the underlying problem.

The barcode reading indicated the barcode was invalid. The nurse spoke with Pharmacy who determined that the medication was non-formulary. Pharmacy approved overriding the error message and administering the medication.

Pharmacy also requested that the event be reported to the facility’s incident and serious event reporting system.

This patient benefited, and documentation was requested to support investigation to prevent similar problems in the future.

After signing out a high-risk medication, the RN brought the medication to a patient in respiratory isolation.
Once in the patient’s room, the patient’s bracelet was scanned, and upon trying to scan the medication, an error message was received. The RN discovered that a portion of the barcode was missing and therefore the label would not scan. The medication was given and then the RN returned to where the high-risk medications are held to scan an undamaged one for documentation purposes.

The scanner indicated that this was not the correct medication for this patient.

This workaround bypassed a safety mechanism, creating a patient hazard.

* Details of event narratives received by PA-PSRS have been modified to preserve confidentiality.

**Why do Providers Use Workarounds?**

Healthcare has a workaround culture, which values expertise in overcoming obstacles to get the job done for the current patient. Dedicated patient care providers feel a professional and ethical responsibility to provide the best, safest care possible to each patient, and they will try to overcome any impediments they encounter. The resultant workarounds may be identified by explicit evidence, such as posted notes or visual reminders, or implicit evidence, such as clinicians ignoring guidelines in favor of alternative procedures.

Because of factors such as incompletely understood or underspecified work conditions, resource constraints, and changing environmental conditions (e.g., patient care emergencies, surges in patient volume, malfunctioning technology), healthcare providers continually adjust how they work, which may include implementing workarounds. Healthcare delivery is not a static process; it is a complex, adaptive system. Constantly evolving conditions make it impossible to anticipate all of the consequences of process or resource decisions.

**Workarounds as Trash**

Workarounds can create short-term hazards, such as when a workaround is used to overcome an intentional barrier, which may result in bypassing a purposeful and appropriate safety intervention, creating a hazardous situation for a patient. For instance, providers may hoard or hide scarce equipment or supplies (e.g., infusion pumps, suture removal kits), which can ensure availability for the provider’s next patient, but, in the long run, exacerbates the shortage.

Long-term hazards may develop when providers use workarounds to manage an immediate problem without addressing its source. Lack of communication about failures decreases the opportunity to recognize system vulnerabilities, investigate problems, and address underlying causes. Similarly, if a workaround is superior to the current standard practice, a lack of discussion about the need for change limits its diffusion.

**Workarounds as Treasure**

Workarounds are frequently undertaken to ensure patient safety and provide efficient care. Some workarounds become embedded and accepted as the norm in patient care processes, which can make them hard to detect.
In other circumstances, workarounds may be more obvious. For example, during an unusual surge in patient volume, triaging and caring for the most critical patients takes precedence, and some documentation tasks may be temporarily deferred. Workarounds have value as elastic adaptivity; providers implement workaround processes to overcome inadequate or defective systems, or, more abstractly, providers sacrifice lower-order goals in order to accomplish higher-order goals.

**Workarounds as Learning Opportunities**

Workarounds contain useful information. Viewed as problem-solving processes, workarounds can help identify flaws, provide important evidence about system function and vulnerability, and serve as input for user-centered design and alignment between work context and available tools and resources. While some organizations adapt clinical practice to the system, others adapt the system to clinical practice—the latter may be the most effective, reconciling design, function, and availability with real-life workflows. Seeking, recognizing, appreciating, and spreading improved practices could improve overall performance.

Tucker asserts that “the challenge of workarounds is to capture their positive aspects—frontline resiliency and creativity—while simultaneously avoiding pitfalls from relying too heavily on ad-hoc solutions to long-standing problems. Health care organizations must solve this challenge if they are to deliver care as efficiently and safely as possible.”

PA-PSRS offers the opportunity to collect and evaluate information about workarounds. Harm score A (unsafe conditions) or B2 (event prevented from reaching a patient because of intervention) may be appropriate for reporting events involving workarounds that successfully avert patient harm. Event report narratives that describe the workaround and its impact can provide useful information to improve healthcare delivery.

**Summary**

Individual workarounds may be seen as problematic “trash” or pragmatic “treasure.” Analysis of the context and circumstances that prompted a workaround can provide useful information that may lead to improving the safety, efficiency, and effectiveness of healthcare delivery processes. An enlightened understanding of workarounds can help healthcare facilities appreciate that workarounds are symptoms of a real or perceived workflow obstacle, and value the information that workarounds provide.

**Notes**


**Supplemental Material**

This video, adapted from a webinar recorded August 8, 2017, explores both sides of workarounds, and provides strategies to improve the safety of patient care delivery by leveraging information gleaned from workarounds.