

# How healthcare personnel carrying the load on the front lines can prevent carrying the virus back home.

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The challenge for healthcare and government leaders clearly is starving out COVID-19 as soon as possible. Less clear, however, is the impact and fallout of a burgeoning patient load coupled with shortages of materials, especially personal protective equipment (PPE), and of point-of-care environments that are hotels, convention centers and college dorms turned into M.A.S.H. units.

Care within the chaos does not come easily, but it can come at a price for doctors, nurses, and caregivers returning to work from retirement or volunteers with little or no experience. In some cases, their risk could be the same as that of the patient, perhaps more so.

An [article](#) in *The Guardian*, written by Christina Frangou on March 25, 2020, reveals the pressure healthcare professionals feel on the job and at home. Unflappably, they perform extraordinary work every day despite dealing with life-and-death situations. Yet, the prospect of bringing the virus home can unravel all that hard-wired grit in even the most composed and courageous veterans.

## Worries multiply between hospitals and homes.

To reduce the risk of infecting his wife and five-week old at home, a doctor in Canada moved into a condominium owned by friends. He continues to work hard but bears a load of guilt because he is not at home at an important time for the family. He feels he should be helping his wife and sharing the experience of parenthood with her.

A trauma surgeon in mid-west U.S.A. worries constantly about infecting her husband, whose respiratory issues and diabetes could make him especially susceptible to infections. Of course, she takes precautions, but she looks to God for direction and control of what is out of her hands.

A California emergency room physician is over 30-weeks pregnant and the mother of a toddler, yet she remains on the job. Duty to patients and duty to family have become opposing forces and there is concern for putting her family at risk. In a very practical sense, at work she wears gloves and a mask all the time. When her shift is done, she changes out of her clothes at the hospital, but then showers at home and puts on clean clothes before interacting with anyone in her family.

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I can empathize with each of these doctors because I have seen how stressful healthcare can be on the best of days, let alone now with patient numbers increasing and shortages looming. But it could be easier on them.

I am a Senior Master Trainer in Training Within Industry, or TWI, which has been used since World War II to train healthcare personnel, as well as factory workers.

*“Practices focused on safety, skills and stability can help turn triage into treatment, chaos into care and worry into self-assurance”.*

TWI teaches how to perform critical tasks more safely, more consistently and more efficiently. I can tell you from experience, a little TWI training can go a long way toward alleviating some of the angst healthcare personnel feel over carrying home illnesses from the hospital.

Teachers from the TWI Institute where I work, and myself, have trained thousands upon thousands of people, many in very demanding environments. They come out of TWI training feeling confident and better about their work because TWI is a teaching and learning system that builds safety, skills and stability. These three factors are particularly relevant in COVID-19 healthcare environments that can be pressured and makeshift. Practices focused on safety, skills and stability can help turn triage into treatment, chaos into care and worry into self-assurance.

### **The secret of the “why”.**

While all teaching methods cover the “what” of a subject or task, and some cover the “how”, TWI adds the “why” to the learning experience. With TWI, students more easily understand and absorb the reason for doing something a certain way – the standardized or “one best way”. Because of that, their ability to remember it skyrockets. Put another way, once the “why” is well understood, the learner leans in with a hunger and desire.

In practice, the TWI Institute uses primarily four programs: Job Instructions, Job Relations, Job Methods and Job Safety. Job Instruction (JI) is used widely in healthcare because it is task-focused and yields the quickest results. JI has four basic steps:

- Acclimating the learner, making them feel comfortable, helping them understand the importance of the job, and preparing them to learn,
- Giving proper demonstration and trialing the procedure with the learner,
- Observing the person perform the task, so the learning is by doing and,
- Tapering off coaching with follow-up.

This results in reduced training time, fewer patient errors, a more flexible, cross-trained staff, and increased job satisfaction. According to Cincinnati physician Dr. Lou Flaspohler, “From my vantage point, compared to traditional training, Job Instructions is the most effective way known to take the novice to the highest level of expertise in a fraction of the time. In the current pandemic, as related to the safety of those working on the front lines with patients, this can mean the difference between life and death for frontline healthcare workers and their patients, and can profoundly affect the safety of the families at home.”

**“Simple brilliance” – the JIB prepares medical personnel the right way, the “one best way”.**

Job Instruction Breakdown sheets, or “JIBs” are an important element in Job Instruction. TWI Institute uses JIBs throughout the four steps in Job Instruction to instruct the subject on the “one best way” to do a job or perform a procedure. The “one best way” is critical to bringing efficiency, stability and safety to the worker and the workplace. Applied to healthcare environments, it could very well mean the difference between patient success or failure. For the doctors who worry over bringing home an illness, Job Instruction and JIBs can teach them how to keep germs away from them, their families and their homes.

The example in Figure 1 displays the simple brilliance of a JIB. It is simple because it is basic, organized, and non-technical, using few words that can be retained quickly. The work becomes much easier to understand. It is brilliant in the way it covers “What” the job is, “How” it should be done that “one best way” and – most critically – “Why” we must do it that way. When the learner grasps the “Why” of something, the learning becomes clear, practical and more memorable.

No. \_\_\_\_\_

**JOB INSTRUCTION BREAKDOWN SHEET**

Task: \_\_\_\_\_

Supplies: \_\_\_\_\_

Equipment & Materials: \_\_\_\_\_

IMPORTANT STEPS		KEY POINTS		REASONS	
<b>WHAT</b>	A logical segment of the operation when something happens to advance the work.	<b>HOW</b>	Anything in a step that might: 1. Make or break the job. 2. Injure the worker. 3. Make the work easier to do.	<b>WHY</b>	Reasons for Key Points

Figure 1 – A sample TWI Job Instruction Sheet (JIB). Shown cut-off for detail.

Central to the successful use of JIBs in TWI training is determining the “one best way”. We use several sources to identify a job breakdown, which can include engineering descriptions, historical descriptions, Center for Disease Control and World Health Organization documentation, and observation. Once we identify the “one best way” and validate it, we develop the JIB accordingly.

**Putting on and removing PPE is far from intuitive.**

When Ebola was discovered in Texas, two nurses contracted the disease and a prime suspect was PPE and how it was used. This caused many hospitals to reconsider methods used historically and modify them accordingly to assure staff and administration that frontline people were as safe as possible. I have conducted TWI Job Instruction training in several hospitals and created Job Instruction and JIBs for many different tasks, including proper use of PPE.

Figure 2 shows a JIB created for removing PPE equipment. Notice how few words there are. Job Instruction emphasizes learning by doing. The JIB charts demonstration and interaction between learner and teacher and it helps the learner understand the meaning of each word and the reason for each key action.

No. \_\_\_\_\_

## JOB INSTRUCTION BREAKDOWN SHEET

Task: **Removing PPE**

Supplies: **Gown, gloves, mask, mask with eye shield**

Equipment & Materials: **None**

IMPORTANT STEPS		KEY POINTS		REASONS	
WHAT	A logical segment of the operation when something happens to advance the work.	HOW	Anything in a step that might: 1. Make or break the job. 2. Injure the worker. 3. Make the work easier to do.	WHY	Reasons for Key Points
1. Unfasten Gown		1. Waist first, then neck		1. End with hands at neck reach to remove gown	
2. Remove gown and gloves		1. Pulling forward from neck away from body 2. Pulling sleeves inside out 3. Peeling off gloves at the same time 4. Folding and rolling gown inside out into a bundle		1. Keeps contaminants away from body with debris falling to floor 2. Keeps any contaminants inside the sleeves 3. Prevents touching outside of gloves with hands 4. Easiest way to dispose while reducing risk of contamination	
3. Remove Face Shield		1. Leaning forward 2. Don't touch shield 3. Releasing strap from back to front 4. Away from face		1. So all contaminants fall away from your face 2. The shield surface is contaminated 3. So you don't pull shield over head with contaminants falling on face 4. Keeps contamination away from face and body	
4. Remove Mask		1. Leaning forward 2. Don't touch mask 3. Releasing lower headband first, then upper headband 4. Away from face		1. So all contaminants fall away from your face 2. Mask surface is contaminated 3. So you don't pull mask over head with contaminants falling on face 4. Keeps contamination away from face and body	
5. Wash Hands		1. Using correct handwashing procedure (see: <a href="https://infectionprotection.twi-institute.com/">https://infectionprotection.twi-institute.com/</a> )		1. Kills germs you may have picked up during PPE removal	

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Figure 2 – A sample Job Instruction Sheet completed for the “one best way” to remove PPE. This procedure follows good practice authenticated by healthcare professionals. However, other healthcare organizations may follow different procedures to achieve the same ends.

world teaching TWI and speaks often to groups interested in stabilizing operations, safety, skills building, lean, and continuous improvement. Mr. Graupp has authored or co-authored several books, including *Getting to Standard Work in Healthcare – Using TWI to Create a Foundation for Quality Care* and *Creating an Effective Management System*, which explores how TWI can improve policy deployment in healthcare and other industries. He can be reached at [pgraupp@twi-institute.com](mailto:pgraupp@twi-institute.com).

Training that combines the four-step method with JIBs builds skills quickly. The results are startlingly positive. Instructive procedures like this could help that California emergency room doctor feel more secure in removing her garments and cleaning up before heading home.

TWI Job Instruction can be done in healthcare facilities for various tasks and procedures such as administering IVs and catheters, processing samples, cleaning IV components, handwashing, cleaning procedure rooms, and so much more. Armed with Job Instruction and JIBs, our doctors, nurses, outpatient and nursing home personnel, and even volunteers, will be able to treat patients more effectively and rest far easier when they return home.

Patrick Graupp is Vice President and Senior Master Trainer at the TWI Institute, the world leader in TWI training and consulting. He travels the