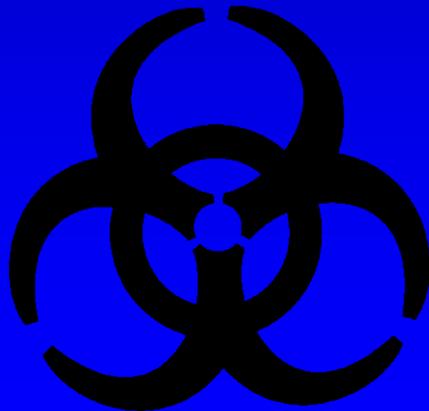


Medical Waste Management and Health and Safety Review

**in Collaboration with
Al-Essa Medical & Scientific Equipment Co. W.L.L**



**Kuwait University
Health Science Center
10 January – 14 January, 2016**

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Dedication to Dr. T. S. Srikumar



Agenda for the next 4 days

1. Overview of waste management and health and safety walkthrough findings
2. Hand Hygiene
3. Global Perspectives
4. Blood Borne Pathogen Review for Dentistry
5. Chemical Compatibility/Spill response
6. Spill response workshop
7. Waste management segregation /containers
8. Post conference quiz
9. Let the Fun Begin – Round 2 – 2016!

And.....

Open discussions /Q+A during the 4 days!

Risk Tolerance- 2015

Safest

Safer

Safe

Operational - 2016

History

Extensive Health and Safety and Waste Management Presentations January – February 2012

- 1. Global Perspective**
- 2. Environmental Health and Safety Issues**
- 3. Activities that generate Medical Waste**
- 4. Risk Assessment**
- 5. Definitions of Medical Waste - WHO**
- 6. Management of waste in the facility**
- 7. Decontamination**
- 8. Transport, Treatment/ Disposal of Medical Waste**



May 2013

Day 1 Physicals (Assessments):

Faculty of Allied Health Sciences

Faculty of Dentistry

Kuwait University Dental Center

Objectives: Review Health and Safety and Waste Management Practices relative to training that was provided last year

Observations – Day 1

1. Essential safety equipment is available:

First Aid kits

Spills kits

Eyewash stations

Safety showers

Fire blankets

PPE available and being used

Warning / Caution Signage

Sinks

Soap

Alcohol hand rub

Pressurized containers secured

Observations (continued)

- 2. Waste management practices generally good with a few gaps. Hazardous chemical require some additional labeling**
- 3. Staff responsive to health and safety questions related**
- 4. MSDS available in most but not all areas**
- 5. SOPS/Policies available in some but not all areas**

Observations Day 2

1. Essential safety equipment is available:

First Aid kits

Spills kits

Eyewash stations

Safety showers

Fire blankets

PPE available and being used

Warning / Caution Signage

Sinks

Soap

Alcohol hand rub

Pressurized containers secured

Observations (continued)

- 2. Waste management practices generally good with a few gaps. Hazardous chemical require some additional labeling and storage modifications**
- 4. Range of labels and posters relative to management of healthcare waste streams**
- 5. Staff responsive to health and safety questions related**
- 6. MSDS available in most but not all areas**
- 7. Safety Policies posted in some areas but not all**
- 8. Storage of chemical supplies is difficult in some areas dues to space limitations**

History

Advance Training on Medical Waste Management January 2015



and her three-year-old Kuwaiti daughter were killed in a fire in a camp apartment received a call shortly after 11 p.m. but firemen found the mother and her son. The fire also caused damage to the building. Fire investigations are underway to determine the cause. Fire authorities asked citizens to take extra safety and security procedures in their homes as temperatures are going down and use

Possession

of an expatriate with three kilograms of heroin joints. The arrest was made by police officers who told officers that he had gone to concerned authorities. He was seen riding a motorcycle by a female citizen led to the dismembered bedoon while doctors were treating him. Hawally police arrested a man and found 175 Captagon pills on him in the optics department.

Arrested with firearm

of a citizen in possession of a handgun with seven rounds. He was sent to prison.

Attempted murder

of a man with a criminal record was arrested after a family's house in Sulaibiya. A woman died of a drug overdose.

Man stabbed to trap

was stabbed in a public park. The man was taken to the hospital where he was stabbed and took his life. He said he can identify two of the



100 KG ROTTEN MEAT DESTROYED

By Hanan Al-Saadoun

KUWAIT: Mubarakiya Municipality center launched a wide-ranging campaign that

in the public affairs department, he said the case is with the public prosecution, and "we should wait until a decision is made", adding that he has full confidence in Kuwait's judiciary.

MEYSA FIRST

KUWAIT: Meysa, a law firm specializing in Restructuring, Capital and Acquisitions, Finance, and Insurance, has today announced its first office in the Gulf region. Established by Partners, Abdulaziz Bader A El-Jeaa, the firm was comprised initially of five lawyers by the end of 2014, with a network of offices in the next five years. The firm differentiates itself as offering unrivalled and client service in a team of highly experienced English speaking lawyers with combined years in the industry. The partners have significant international law firm experience and clients across a range of industries on some of the most complex transactions.

Unrivalled

Its client list includes some of the largest companies and financial institutions, sovereign states and their agencies, and financial institutions and financial institutions.

...by many universities and workplaces to allow "distance learning" to support campus- or office-based teaching - could enable

gain knowledge and skills through online and offline eLearning as well as be better than they do through traditional teaching.—Reuters



TRAVERSE CITY: Microfibers were found inside the body of a Great Lakes fish, shown in this July 28, 2014 photo.—AP

SCIENTISTS: GREAT LAKES TEEMING WITH TINY PLASTIC FIBERS

TRAVERSE CITY: Scientists who have reported that the Great Lakes are awash in tiny bits of plastic are raising new alarms about a little-noticed form of the debris turning up in sampling nets: synthetic fibers from garments, cleaning cloths and other consumer products. They are known as "microfibers" - exceedingly fine filaments made of petroleum-based materials such as polyester and nylon that are woven together into fabrics.

"When we launder our clothes, some of the little microfibers will break off and go down the drain to the wastewater

About three-quarters of the bits they've found are fragments of larger items such as bottles. Smaller portions consist of microbeads, Styrofoam and other materials. But when Mason's team and a group from the Illinois-Indiana Sea Grant program took samples from southern Lake Michigan in 2013, about 12 percent of the debris consisted of microfibers. It's unclear why the fibers were three times as prevalent in that area as elsewhere in the lakes, although currents and wave actions may be one explanation, said Laura Kammin, pollution prevention specialist with Sea Grant

OF D

'W

LAS VEGAS: It's not if you've taken or ho burned in a day. We health monitors are place and diverse, b all of that data?

"We have a lot of then stop using the dent of Fitbug, a Br Landau attended t show in Las Vegas of 12-week fitness detailed and custo ting in shape. "If y Landau, "they've g tracking."

Health monitors Startups and big te show promoted a generated by wea ness exercises to get pregnant. Ott ue by aggregatin so it can be vie That could be u privacy concern

Turning

"A lot of we numbers at pe that data and Jason Fass of 2 that makes a t tennis, baseba Zepp has be said in an int weekend athle new smartpho ed analysis of pare their mov

The trend g startup called that can measu trical impulses, vides mental mind, but fou technology mic ices in the fut wearer's iTunes

Other exhib sensors design lives alone, kee sending an aler ple, the wearer usual pattern of Colorado-h



Kuwait Times 11 January 2016

DIVERS PURSUE CLEANSING MARINE ENVIRONMENT

KUWAIT: Kuwait Dive Team has removed three tons of waste from off-shore locations in Al-Sulaibikhat. The discarded items, including plastic bags and cans, posed a hazard to the coastal environment, birds and sea creatures' habitat in Kuwait Bay, said Walid Al-Shatti, in charge of the team's operations. The littering was done by sea men boarding vessels and goers, he said, adding that some of the waste had been pushed into the sea through sewers during recent heavy rains.

The team, which is affiliated with the Environmental Voluntary Foundation (EVF), carried out the clean-up in coordination with Kuwait Municipality, Environment Public Authority (EPA), Natural Therapy Department of the Ministry of Health, as part of the "clean Kuwait beaches" campaign, with support from the Ministry of State for Youth Affairs. It will proceed to cleanse the Kuwaiti beaches and islands, he said, indicating that further guidance would be addressed to the sea goers and fisher-

men to spare the marine environment such harmful acts.

Emphasizing necessity to deal with all sources and causes of pollution, Shatti called for stricter punishment against violators and enhancing further public awareness of the necessity to safeguard the marine wild life. Moreover, he expressed hope that projects worked out for such purposes be pursued, particularly those related to protecting the bay, where diverse species of marine creatures lay eggs. — KUNA





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American Journal of Infection Control

journal homepage: www.ajicjournal.orgAIC
American Journal of
Infection Control

Original Research Article

Role of a multimodal educational strategy on health care workers' handwashing

Jo Andrea Watson RN, DNP, MSN, CCRN, CPAN *

Infection Prevention Department, St. Mary's Medical Center, Huntington, WV

Key Words:

Hand hygiene
hand hygiene compliance
health care workers' hand hygiene
compliance
World Health Organizations' My 5
Moments for Hand Hygiene
methodology

Background: Good hand hygiene is the single most important strategy used to prevent health care-associated infections (HAIs); however, health care workers' (HCWs') hand hygiene compliance rates range between 25% and 51%. This study aims to determine if a multimodal strategy using the World Health Organization's (WHO's) My 5 Moments for Hand Hygiene methodology increases HCWs' compliance with handwashing and awareness of the importance of good hand hygiene in the prevention of HAIs.

Methods: A quasi-experimental, 1-group pre-post survey design was used to test awareness and knowledge. A simple interrupted time series methodology at baseline and 3 months was used to monitor hand hygiene compliance.

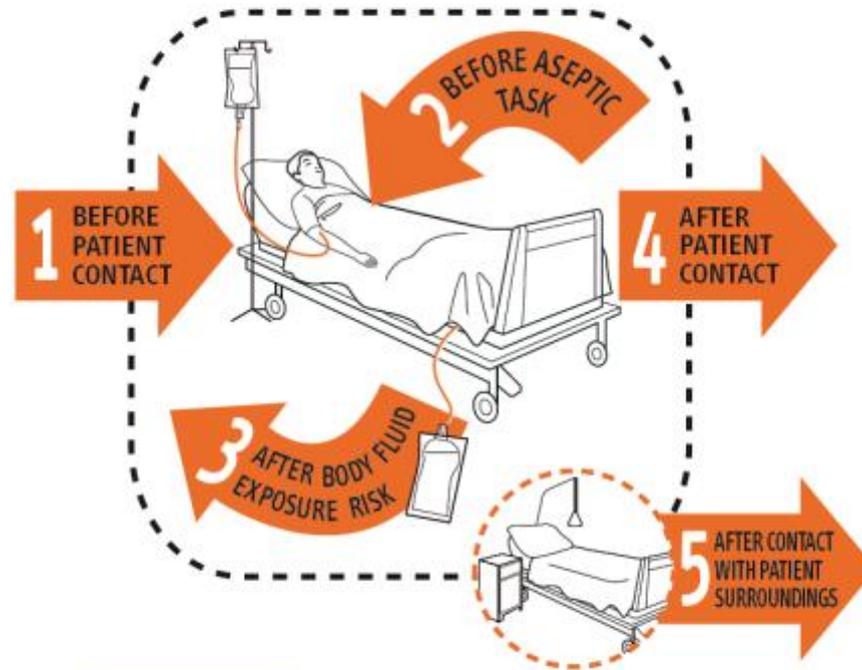
Results: Overall, HCWs' hand hygiene compliance increased from 51.3% to 98.6%, with an odds ratio of 71.10. The pre-post survey demonstrated HCWs were aware and knowledgeable of the importance of good hand hygiene. Eight postsurvey questions focusing on the strategies used to promote hand hygiene demonstrated statistical significance using a 1-sample *t* test, with *P* values ranging from .000-.024.

Conclusion: A multimodal approach using the WHO's My 5 Moments for Hand Hygiene does increase HCWs' hand hygiene compliance and awareness and knowledge of the importance of hand hygiene in the prevention of HAIs. Using this approach can produce a positive social change by reducing preventable disease and decreasing HAIs not only within a facility but also in the community.

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Your 5 moments for HAND HYGIENE

Image credit: Shutterstock



1	BEFORE PATIENT CONTACT	WHEN? Clean your hands before touching a patient when approaching him or her WHY? To protect the patient against harmful germs carried on your hands
2	BEFORE AN ASEPTIC TASK	WHEN? Clean your hands immediately before any aseptic task WHY? To protect the patient against harmful germs, including the patient's own germs, entering his or her body
3	AFTER BODY FLUID EXPOSURE RISK	WHEN? Clean your hands immediately after an exposure risk to body fluids (and after glove removal) WHY? To protect yourself and the health-care environment from harmful patient germs
4	AFTER PATIENT CONTACT	WHEN? Clean your hands after touching a patient and his or her immediate surroundings when leaving WHY? To protect yourself and the health-care environment from harmful patient germs
5	AFTER CONTACT WITH PATIENT SURROUNDINGS	WHEN? Clean your hands after touching any object or furniture in the patient's immediate surroundings, when leaving - even without touching the patient WHY? To protect yourself and the health-care environment from harmful patient germs



WHO acknowledges the Hôpital Universitaire de Genève (HUG), in particular the members of the Infection Control Programme, for their active participation in developing this material.



October 2006, version 1.

How to handrub?

WITH ALCOHOL-BASED FORMULATION



Apply a palmful of the product in a cupped hand and cover all surfaces.



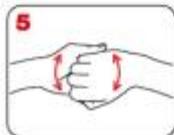
Rub hands palm to palm



right palm over left dorsum with interlaced fingers and vice versa



palm to palm with fingers interlaced



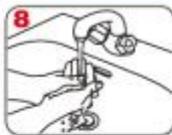
backs of fingers to opposing palms with fingers interlocked



rotational rubbing of left thumb clasped in right palm and vice versa



rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa



rinse hands with water



dry thoroughly with a single use towel



use towel to turn off faucet



20-30 sec



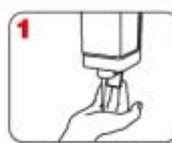
...once dry, your hands are safe.

How to handwash?

WITH SOAP AND WATER



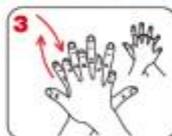
Wet hands with water



apply enough soap to cover all hand surfaces.



palm to palm with fingers interlaced



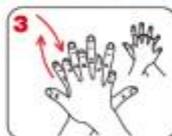
right palm over left dorsum with interlaced fingers and vice versa



palm to palm with fingers interlaced



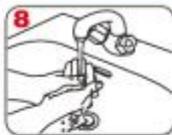
backs of fingers to opposing palms with fingers interlocked



rotational rubbing of left thumb clasped in right palm and vice versa



rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa



rinse hands with water



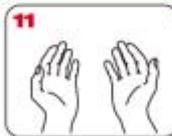
dry thoroughly with a single use towel



use towel to turn off faucet



40-60 sec



...and your hands are safe.



WHO acknowledges the Hôpitaux Universitaires de Genève (HUG), in particular the members of the Infection Control Programme, for their active participation in developing this material.



October 2006, version 1.

FIGURE 10

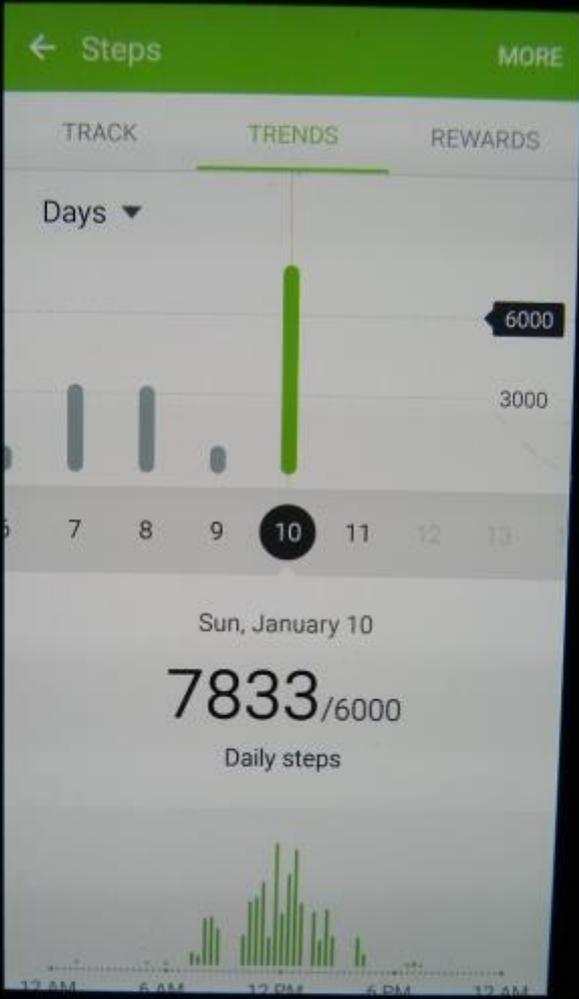
WHO poster on indications for hand hygiene in a dental care situation

Your 5 Moments for Hand Hygiene Dental Care



1	BEFORE TOUCHING A PATIENT	WHEN?	Clean your hands before touching a patient.
		WHY?	To protect the patient against harmful germs carried on your hands.
2	BEFORE CLEAN/ASEPTIC PROCEDURE	WHEN?	Clean your hands immediately before performing a clean/aseptic procedure.
		WHY?	To protect the patient against harmful germs, including the patient's own, from entering his/her body.
3	AFTER BODY FLUID EXPOSURE RISK	WHEN?	Clean your hands immediately after a procedure involving exposure risk to body fluids (and after glove removal).
		WHY?	To protect yourself and the environment from harmful patient germs.
4	AFTER TOUCHING A PATIENT	WHEN?	Clean your hands after touching the patient at the end of the encounter or when the encounter is interrupted.
		WHY?	To protect yourself and the environment from harmful patient germs.
5	AFTER TOUCHING PATIENT SURROUNDINGS	WHEN?	Clean your hands after touching any object or furniture in the patient surroundings when a specific zone is temporarily and exclusively dedicated to a patient - even if the patient has not been touched.
		WHY?	To protect yourself and the environment from harmful patient germs.

<http://www.slideshare.net/diegozanatagratti/guideline-hm-2012-oms>



Observations

1. Essential safety equipment is available:

First Aid kits Spills kits
Eyewash stations Safety showers
Fire blankets PPE available and being
Warning / Caution Signage Sinks Soap

Alcohol hand rub not always present

Pressurized containers secured in some areas but not others*

- *Clarification to follow....

2. Waste management practices generally good with a few gaps.
Some inappropriate use of bins

3. Staff responsive to health and safety questions related

4. Lack of consistent educational posters for waste management

5. Storage of chemical supplies is difficult in some areas dues to
space limitations

???



Quick Guide to Disposing Laboratory Waste

PACKAGING REQUIREMENTS RELATIVE TO NATURE OF WASTE

- **HEAVY:** Use smaller volume containers/packaging that accommodate weight and can be comfortably carried
- **LIGHT:** Use higher volume container/packaging
- **WET:** Use sealable, LEAK-proof container/packaging
- **DRY:** Use sealable container/packaging
- **SHARP OR POTENTIALLY SHARP WHEN BROKEN:** Use sealable PUNCTURE-proof container/packaging

	GENERAL	SHARPS ALSO INFECTIOUS	INFECTIOUS NON-SHARPS	CHEMICAL	MIXED WASTE									
	UNCONTAMINATED PACKAGING, OFFICE SUPPLIES, BEVERAGE CONTAINERS, HAND TOWELS, BOXES, GLASS/PLASTIC BOTTLES, FOOD, CARDBOARD, OILING WRAP, FOOD WRAP	EMPTY GLASS VIALS	SCALPEL BLADES	FIXED (TO GLASS SLIDES) PATHOLOGICAL WASTE	GLASS SLIDES OR CLINICAL GLASS	CULTURE STOKES, BLOOD AND/OR BODY FLUIDS CONTAINED IN GLASS TEST TUBES	INOCULATION BUDES	PLASTIC VIALS	PLASTIC PIPETTES	PETRI DISHES / CULTURE PLATES	PLASTIC TEST TUBES CONTAINING BLOOD AND/OR BODILY FLUIDS	FIXED AND UNFIXED PATHOLOGICAL / ANATOMICAL WASTE OR HUMAN TISSUE (BIOPSIES) AND BODY PARTS (DOES NOT INCLUDE TEETH OR HAIR)	USED, CONTAMINATED, OR UNUSED / EXPIRED CHEMICALS INCLUDING USED ACETONE, HYDROCHLORIC ACID CONTAMINATED WITH HEAVY METALS, SODIUM HYDROXIDE SOLUTION, REAGENTS, ETC.	MIXED LIQUID WASTE FROM ANALYZERS/EQUIPMENT CONTAINING A MIXTURE OF WATER, BLOOD (INFECTIOUS) AND REAGENTS (CHEMICAL) IN VARYING PROPORTIONS
	● ●	● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●	→	→
	THICK TRANSPARENT/BLACK BAG, SUITABLY SEALED WITH A CABLE-TIE WHEN 3/4 FULL	FOR ALL SHARPS USE PUNCTURE-PROOF, RIGID PLASTIC SHARPS CONTAINER APPROPRIATELY LABELED AND COLOUR-CODED	THICK RED BAG, SUITABLY SEALED WITH A CABLE-TIE WHEN 3/4 FULL, APPROPRIATELY LABELED AND COLOUR CODED	IF A SEALABLE, LEAK-PROOF, RIGID PLASTIC CONTAINER IS UNAVAILABLE, DOUBLE BAG WITH A THICK RED BAG. SUITABLY SEAL WITH A CABLE TIE WHEN 3/4 FULL. PLACE INTO A SUITABLE FIBRE-BOARD BOX, APPROPRIATELY TAPED SHUT AND LABELED.	SEALABLE, LEAK-PROOF, RIGID PLASTIC CONTAINER, APPROPRIATELY LABELED AND COLOUR CODED	FOR SPILL MANAGEMENT, PACKAGING, DISPOSAL AND FIRST AID GUIDELINES REFER TO THE MATERIAL SAFETY DATA SHEET (MSDS) WHICH IS, BY LAW, ISSUED WITH EVERY CHEMICAL MANUFACTURED AND SOLD ON THE MARKET. ALTERNATIVELY, CONSULT WITH SUPPLIER, MANUFACTURER, SEA (SWAZILAND ENVIRONMENTAL AUTHORITY) OR HAZARDOUS WASTE MANAGEMENT CONTRACTOR.	CLEAR OR WHITE PLASTIC DRUM/BOTTLE APPROPRIATELY LABELED							
	DETERMINED BY VOLUME AND STORAGE CAPACITY	WITHIN 30 DAYS	AUTOCLAVE AND DISPOSE OF WITHIN 3 DAYS	WITHIN 3 DAYS	WITHIN 3 DAYS OR UP TO 30 DAYS IF STORED AT -2°	INDEFINITE, DEPENDING ON CHEMICAL IN QUESTION	DETERMINED BY VOLUMES GENERATED, STORAGE CAPACITY, AND APPROVED DISPOSAL METHOD							
	LANDFILL	SECURE PIT OR INCINERATE OR TREAT WITH APPROVED ALTERNATE TECHNOLOGY	SECURE PIT OR INCINERATE OR TREAT WITH APPROVED ALTERNATE TECHNOLOGY	SECURE PIT OR INCINERATE OR TREAT WITH APPROVED ALTERNATE TECHNOLOGY	SPECIALIZED INCINERATOR OR INERTIZE OR ENCAPSULATE OR USE SUITABLE treatment in another country	SEND SAMPLE TO SWAZILAND WATER SERVICES CORPORATION (SWSC) FOR TESTING AND DISPOSAL GUIDANCE OR CONSULT WITH SHLS NATIONAL SAFETY OFFICER								



Ministry of Health
Produced by Environmental Health Department
and Swaziland Health Laboratory Services (SHLS)









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Brief report

The use of a process challenge device in dental office gravity displacement tabletop sterilizers



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Department of Environmental Health and Safety, and Dental Practice, University of the Pacific Arthur A. Dugoni School of Dentistry, San Francisco, CA

Key Words:

Sterility assurance
Biological indicator
Process challenge device
Dental instrument sterilization
Chemical indicators

There is evidence that dental office sterilizers often fail to pass the challenge of a biological indicator test. The use of a class 5 integrating indicator in each load could reduce the risk of instruments being released when all parameters for sterilization have not been met.

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