DPSF | DENTAL PATIENT SAFETY FOUNDATION

THE FIRST 'PATIENT SAFETY ORGANIZATION' (PSO) FOR DENTISTRY

1

WE THINK WE KNOW THE PROBLEM

2

Heinrich's law

1 – 30 – 300

For Every Major Injury, there are 30 Accidents that Cause Minor Injury, and 300 Accidents that Cause No Injury

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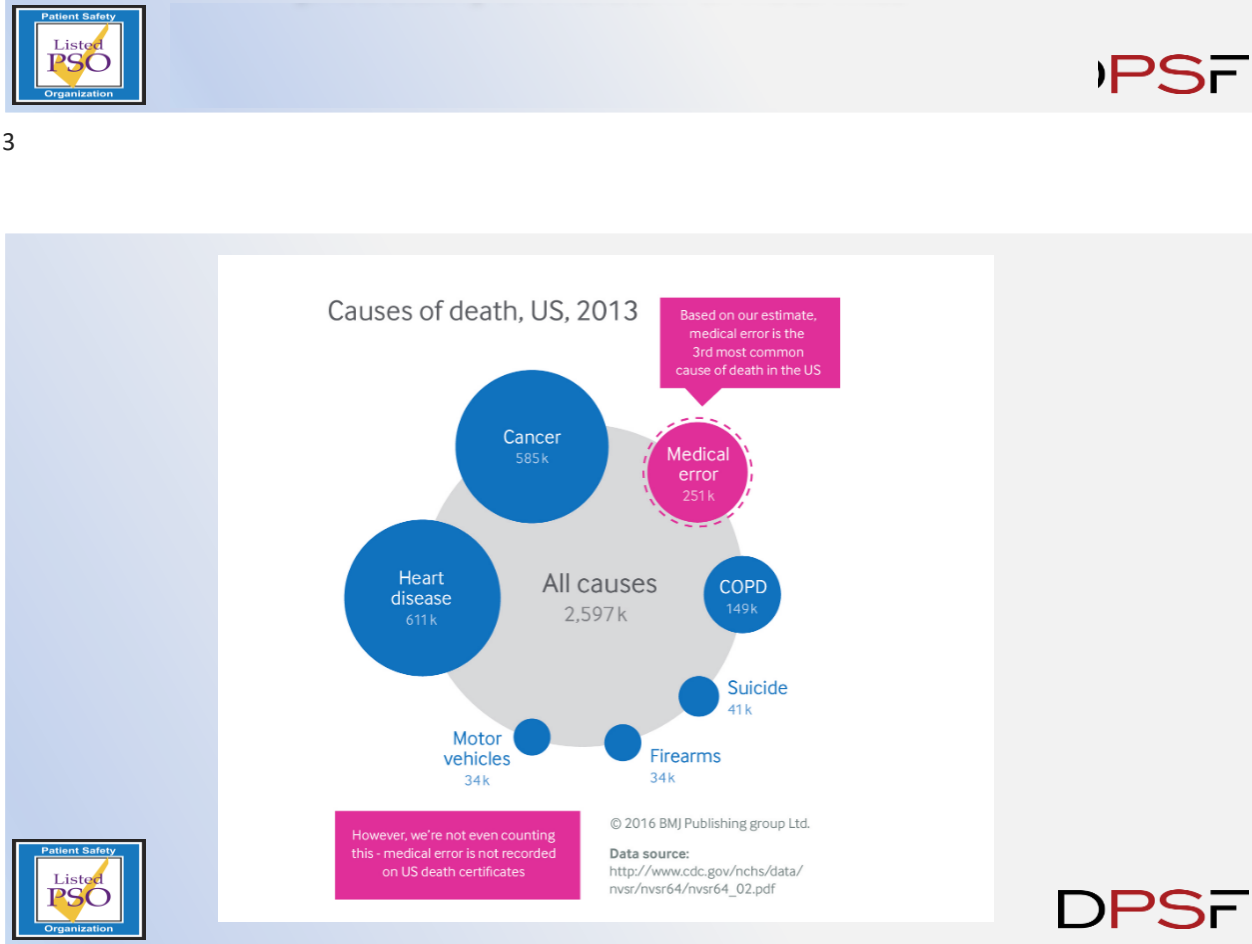

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Dentistry is a "cottage" industry

Growing public vigilance

- Regulated at the state level
- "Dental" events often minor
- No credentialing, oversight or peer review
- Incidents / close calls / unsafe conditions exist

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5

Anesthesia Incidents

Patient safety events

- Incidents
  - events that reach the patient, whether or not harm was done
- Near misses (close calls)
  - events that do not reach the patient
- Unsafe conditions
  - Circumstances that increase the probability of incident or near miss

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Dentistry

- Complex Care- High Stress- High Stakes
- Unpredictable Outcomes
  - Requires Human Interaction on Both Ends – Doctor/Patient
- Harm Can Occur Even When We Have Done Everything We Were Supposed to Do
  - Standard of Care
- What Parts of the Equation are Controllable?

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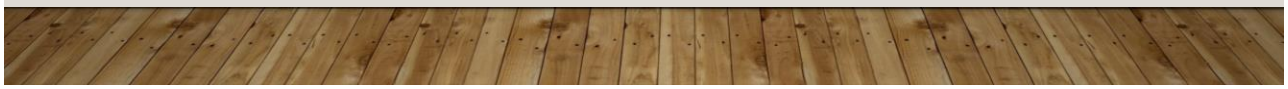
8

Low Frequency High Impact Events



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THE DEEP SLEEP

'6000 Will Die or Suffer Brain Damage'

APRIL 22, 1982

9

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What are the Barriers to Success in Dentistry?

- Concern about Exposure to Liability
- More Work for the Practitioner?
- Shame in Admitting Mistakes

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11

What is a Patient Safety Organization(PSO)?

- Product of the U.S. Patient Safety Quality Improvement Act of 2005
  - Oversight by the Dept. of Health & Human Services
  - Management by the Agency for Healthcare Research & Quality (AHRQ)
- A PSO can collect information from adverse events involving patients
- Federal protection from legal discovery

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12

Who is the DPSF ?

- State of Illinois not-for-profit corporation
- Primary and only activity
  - Improve Patient Safety and the Quality of Dental Care in the U.S.
- Patient Safety Organization
  - Data protected under federal law from discovery
- Independent Organization in Dentistry

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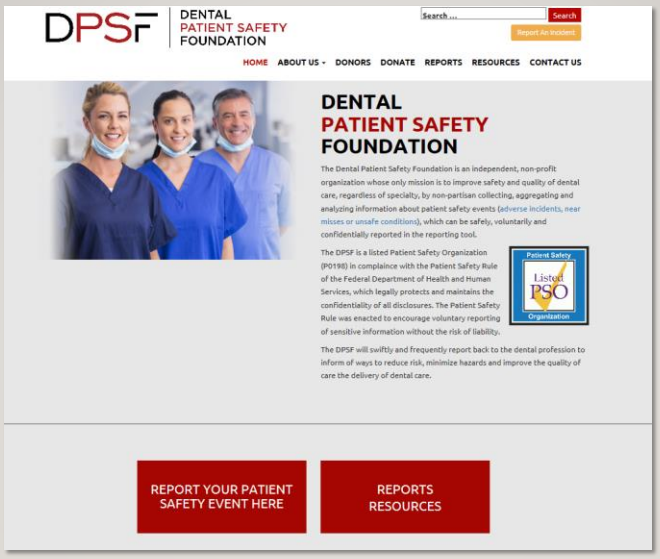
13



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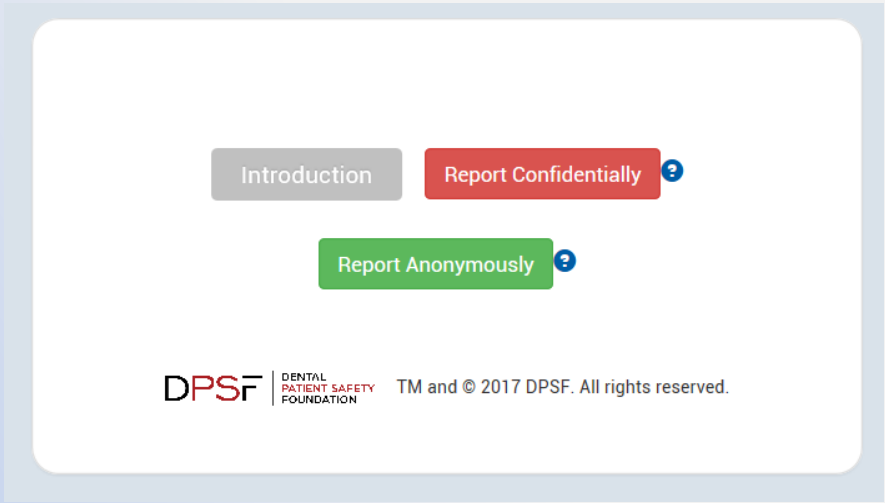
14

About the tool



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15

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WHO CAN REPORT ?

ANY LICENSED HEALTH CARE PROVIDER

16

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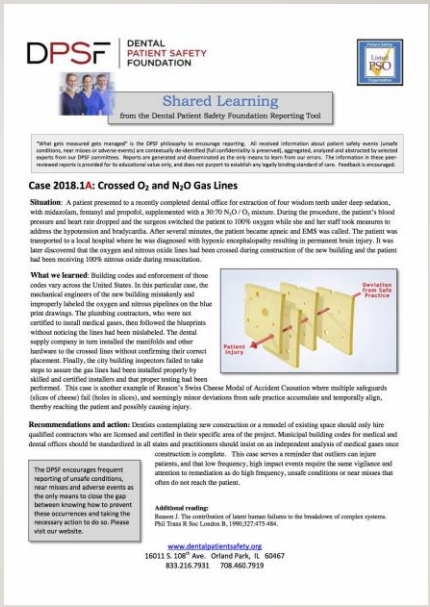
WHAT GETS REPORTED ?

"PATIENT SAFETY EVENTS"

ALL DATA IS PRIVILEGED AND CONFIDENTIAL

17

Safety Reports Available on the Website



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Shared Learning
from the Dental Patient Safety Foundation Reporting Tool

"What gets measured gets managed" is the DPSF philosophy to encourage reporting. All received information about patient safety events (unsafe conditions, near misses or adverse events) are contextually de-identified (full confidentiality is preserved), aggregated, analyzed and abstracted by selected experts from our DPSF committees. Reports are generated and disseminated as the only means to learn from our errors. The information in these peer-reviewed reports is provided for its educational value only, and does not purport to establish any legally binding standard of care. Feedback is encouraged.

Case 2018.1A: Crossed O_2 and N_2O Gas Lines

Situation: A patient presented to a recently completed dental office for extraction of four wisdom teeth under deep sedation, with midazolam, fentanyl and propofol, supplemented with a 30:70 N_2O / O_2 mixture. During the procedure, the patient's blood pressure and heart rate dropped and the surgeon switched the patient to 100% oxygen while she and her staff took measures to address the hypotension and bradycardia. After several minutes, the patient became apneic and EMS was called. The patient was transported to a local hospital where he was diagnosed with hypoxic encephalopathy resulting in permanent brain injury. It was later discovered that the oxygen and nitrous oxide lines had been crossed during construction of the new building and the patient had been receiving 100% nitrous oxide during resuscitation.

What we learned: Building codes and enforcement of those codes vary across the United States. In this particular case, the mechanical engineers of the new building mistakenly and improperly labeled the oxygen and nitrous pipelines on the blue print drawings. The plumbing contractors, who were not certified to install medical gases, then followed the blueprints without noticing the lines had been mislabeled. The dental supply company in turn installed the manifolds and other hardware to the crossed lines without confirming their correct placement. Finally, the city building inspectors failed to take steps to assure the gas lines had been installed properly by skilled and certified installers and that proper testing had been performed. This case is another example of Reason's Swiss Cheese Modal of Accident Causation where multiple safeguards (slices of cheese) fail (holes in slices), and seemingly minor deviations from safe practice accumulate and temporally align, thereby reaching the patient and possibly causing injury.

Recommendations and action: Dentists contemplating new construction or a remodel of existing space should only hire qualified contractors who are licensed and certified in their specific area of the project. Municipal building codes for medical and dental offices should be standardized in all states and practitioners should insist on an independent analysis of medical gases once construction is complete. This case serves a reminder that outliers can injure patients, and that low frequency, high impact events require the same vigilance and attention to remediation as do high frequency, unsafe conditions or near misses that often do not reach the patient.

The DPSF encourages frequent reporting of unsafe conditions, near misses and adverse events as the only means to close the gap between knowing how to prevent these occurrences and taking the necessary action to do so. Please visit our website.

Additional reading:
Reason J. The contribution of latent human failures to the breakdown of complex systems. Phil Trans R Soc London B, 1990;327:475-484.

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18

How can you help?

- Explore the Website
- Subscribe to Receive Monthly Reports
- Talk with Colleagues About DPSF
- Encourage Associations/Societies to Take Part
- Report Events!
- Consider A Donation

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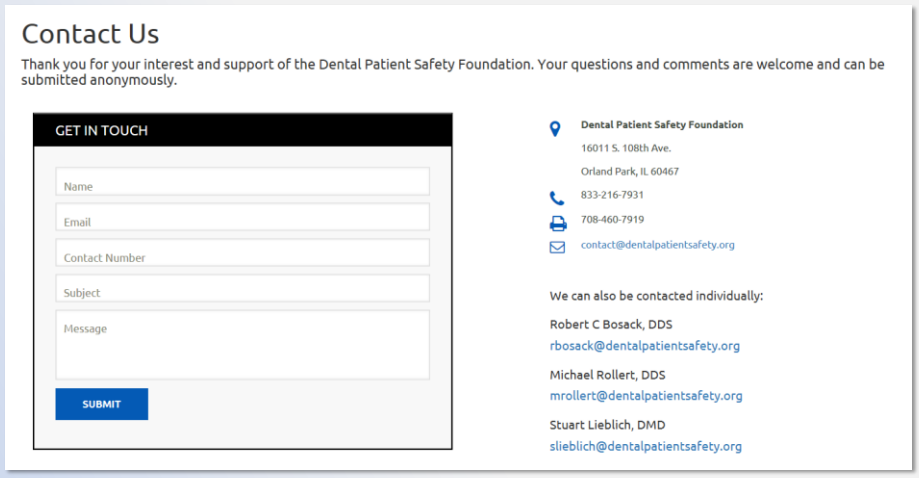
19



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20

21