Introduction

Dr. Jeffrey Nordella
Thank you for the invitation.
Background

- I am the medical director at Porter Ranch Quality Care. We open in May 2009.

- I attended the University of California San Diego received a bachelor of science in human biology.

- I received my medical degree from the UCLA School of Medicine and trained in family medicine and emergency medicine.
Disclosures

- I have not been contacted by any representatives from semper energy or the gas company.
- I am not part of any activist group.
- I have no financial incentives.
- I have no relationships with any legal firms. For transparency reasons, I was recently approached by a law firm that had offered to retain me, I politely refused.
- I wish to maintain neutrality.
Health Screen Study

- Why? Simply, because no one else was.
- The study was not to prove or disapprove causation but only at best to identify associations.
- I started reviewing the chemicals/toxins that the community had been exposed too, at least the one that were announced publicly.
- I discovered a number of toxins had both an acute and chronic effect. Some which might not become evident until five years after exposure.
- Therefore, I recommended and implemented a baseline health screen.
How was Health Screen Study performed

- I personally met exposed patients face-to-face and completed a present day history, a past medical history, and performed an physical exam.
- Specific baseline testing was performed.
Baseline Lab Testing

- Complete blood count with differential known as a CBC with diff. This measures, in essence a patients bone marrow function.

- Metabolic chemistry panel was also obtained. This looks at the patient’s blood sugar, electrolytes, thyroid function, renal function, and liver function.

- Two view Chest X-Ray.

- Pulmonary function testing.
Exposure (Foundation)

- We all know that this gas blowout was the largest in history of this nation.

- We also know that this community was exposed to the components of natural gas as well as contaminant/toxins.

- What we don’t know from a reliable unbiased source is exactly what we have been exposed too, how much, and for how long.
What?

- I recently had a face-to-face meeting with the Los Angeles County Department of Public Health.
- It was disclosed that they themselves are unaware of the entire chemical composition of the gas.
How much?

- In my opinion this as well has not been answered.
- The who, where, when, and by what technology? I am personally unaware.
- I am unaware of anyone discussing the scientific principle of dosing per bodyweight. This would clearly make pets, children, and then adults more susceptible in that order.
- Example: You would not give your child and adult dose of Tylenol because we know it would damage their liver.
How long?

- This topic is complex in itself.
- Was their chronic exposure prior to the blowout? If so, again, What? How long? How much?
- Then came the peak exposure from the acute blowout.
- Followed by the re-release of gases into the community through the erosion of soil. And now we are seeing a secondary spike in patient symptomatology.
Chemicals

- Methane
- Mercaptan
- Hydrogen Sulfide
- Benzene(VOC)
- Radon
- Metals
Metals

- Manganese
- Strontium
- Lead
- Aluminum
- Other?
Methane side effects

- Headache
- Dizziness
- Fatigue
- Shortness of breath/cough
- Nausea/vomiting
Benzene side effects

- Cough
- Dizziness
- Headache
- Nausea/Vomiting
- Palpitations
- Bone marrow suppression: anemia, leukemia, and aplastic anemia.
Mercaptan

- Headache
- Dizziness
- Nausea/vomiting/diarrhea
- Pulmonary irritation
- Cough/wheezing
- Increased heart rate/palpitations
- Eye and mucous membrane irritation
- Dermatitis
Hydrogen Sulfide side effects

- Cough/shortness of breath
- Eye irritation
- Fatigue
- Nausea/vomiting
- Pulmonary edema
- Headache (vasodilator)
Radon

- Radioactive Atom
- Decay 3.8 days
- Gives off radiation from the nucleus of the atom which potentially causes DNA mutation to the human cell.
- Has been associated with chronic lymphocytic leukemia (CLL).
- Exposure is associated with lung cancer mainly in smokers and former smokers.
Lead

- Abdominal pain
- Constipation
- Headache
- Irritability
- Tingling in hands and feet
- Associated with anemia and central nervous system disorders.
Aluminum

- Contact dermatitis
- Associated with estrogen related illnesses. Example: estrogen influenced breast cancer
Manganese

- Parkinson like syndrome (Manganism)
- Associated with central nervous system disease.
Strontium

- Potentially affects bone growth.
Cumulative affect

- There is no study/documentation that I can find in the literature that addresses the human response after being exposed to all of these chemicals, at one time!

- Yet there a particular parties that will tell you that they are harmless and should not have a long-term effect.
Cross Reference Symptoms

- Headache: 4 out of 4, 1 metal
- Cough/shortness of breath: 4 out of 4, 1 metal
- Dizziness: 3 out of 4
- Fatigue: 2 out of 4, 1 metal
- Rash: 2 out of 4, 1 metal
- Nausea/vomiting: 4 out of 4, 2 metals
The Health Screen Study

- Initiated in January 2016 approximately 10 weeks after the blowout.
- New study group is forming in January 2017.
- 53 patients involved
- 31 females and 22 males
- Ages span from 11 through 80
- Concentration of patients are between the age of 40 and 60’s
Health Screen Study

- 52 of 53 patients had symptoms.
- Only one patient was without symptoms.
- 52 of 53 patients had two or more symptoms.
- 52 of 53 patients had symptoms within two weeks of the blowout.
- Mileage from the Aliso Canyon complex range between one mile to five miles.
- The residents were located in a pattern from Southwest to South to Southeast almost on an equal distribution.
Health Screen Study

• 54% of the patients involved in the study had a past medical history and are taking medications.

• The most common pre-existing medical conditions: hypothyroidism, hypertension, and hyperlipidemia.

• 46% of the patients are healthy with no past medical history whatsoever and are not taking medications.

• Three patients had been diagnosed prior with cancers. Breast, lymphoma, and esophageal carcinoma.
#1 Presenting symptoms

- Cough: 42 of 53 patients or 79.2% presented with a non-productive cough with a duration greater than four weeks.

- I removed all potential other causations of chronic cough, that being a history of smoking, seasonal allergies, cardiopulmonary disease such as asthma or COPD, and or medications.

- 39 of 53 patients or 73.5% had no identifiable causation for a chronic cough.
#2 Presenting Symptom

- Headache: 40 out of 53 or 77%
Classical Migraine Headaches

- Possible aura (Visual disturbance)
- Unilateral headache
- Hypersensitivity to sound
- Photophobia
- Nausea/vomiting
Characteristics of Headache from exposure

- No aura
- Headache was global or bilateral
- No sensitivity to sound
- No photophobia
- Some patients had a headache without nausea or vomiting.
Headaches

- Of the 40 patients that had headaches only four had a prior history of migraine.

- All four patients that had prior history of migraines complained that their migraines had increased in severity and duration requiring Botox administration for control shortly after the blowout.
Other Common Symptoms

- Nose bleeds 34.6%
- Dizziness 28.8%
- Nausea/Vomiting/Diarrhea 23%
- Eye irritation 13.4%
- Rash 11.5%
Other Uncommon Symptoms

- Tingling of hands
- Tingling of tongue
- Forgetfulness
- Dry mouth
Uncommon Symptoms

- Throat irritation
- Loss of voice
- Concentration issues
- Dry eyes
- Tearing eyes
Uncommon Symptoms

- Chest tightness
- Joint pain
Physical Findings and laboratory data

- I have not fully assessed all physical findings and laboratory data as of yet.
- I do want to comment though on the evidence of nosebleeds.
- When appropriate I have documented a significant number of nasal exams showing past evidence of mucosal injury and bleeding.
The word is spreading

- I receive approximately 10+ phone calls a day.
- I’ve been noting information of case after case. Granted these are not patients that I have seen face-to-face but yet just of taking historical information. These are diagnosis made by other physicians and or facilities.
- There are numerous cases which I feel are very significant to the subject matter.
Case Presentations

- 12-year-old female diagnosed with aplastic anemia (Bone marrow failure)
- Incidence: 3 patients per 1 million population (not stratified by age)
- Literature documents an association between benzene and aplastic anemia.
• Seven-year-old female diagnosed with Leukemia, AML (acute myelogenous leukemia)
• AML is most common in adults approximately 90%
• Incidence 7 cases for 1 million patient population.
• Stratified for age, lowest incidences ages 4-10.
• Literature documents an association with benzene.
Other Cases

- Central nervous system demyelination syndrome
- Recurrence of non-Hodgkin’s Lymphoma
- Pancytopenia (malfunction of the bone marrow)
- Pulmonary arterial hypertension
- Pediatric anemia's
- New onset seizure disorders
- New onset asthma
- Hair loss both in adults and children.
- Unexplained Rashes
- This all in a population of approximately 30,000.
- I believe we are just scratching the surface and there is much more to discover.
- We need cooperation and collaboration.
Recommendation

- For clarification I am not stating a causation, that would not be scientifically appropriate.

- There needs to be a larger patient population studied in order to accurately represent the exposed community.

- I recommend a more in-depth unbiased professional study be performed.

- It would be negligent to move forward re-pressurizing the field without it.
Conclusion

• Ideally, in order to come to a conclusion of causation scientifically, one would like to compare the incidence of illness/disease within an unexposed community. For obvious reasons this has its difficulties.

• I can attest from first-hand experience as the medical director of an urgent care family practice office in an adjacent community that I have never seen patients symptoms with such disarray from the norm.

• Thank you