

Toxicology Orientation

2022

Overview

- Expectations
- Professionalism
- Background
- Daily operations
- Taking call
- Documentation

Welcome

We are excited to have you:

- Residents / Fellows: EM, Peds, IM, Psychiatry
- Students: WUSTL, away rotators

Our service:

- Clinical service, education, research
- Toxicology, Addiction Medicine
- St. Louis Children's Hospital, Barnes Jewish Hospital.
- MBMC Telemedicine (Attendings and APPs only)

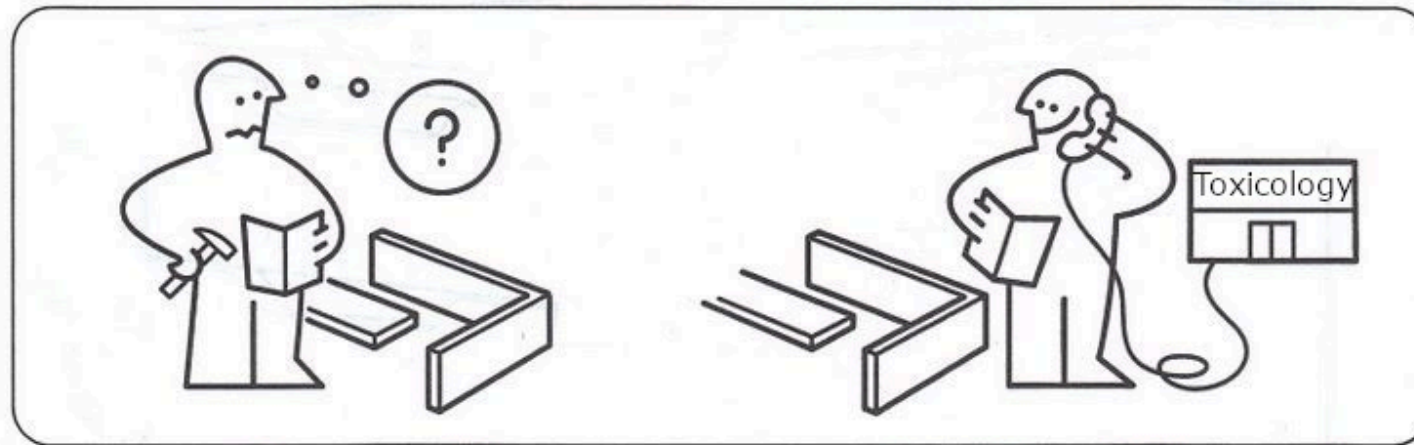
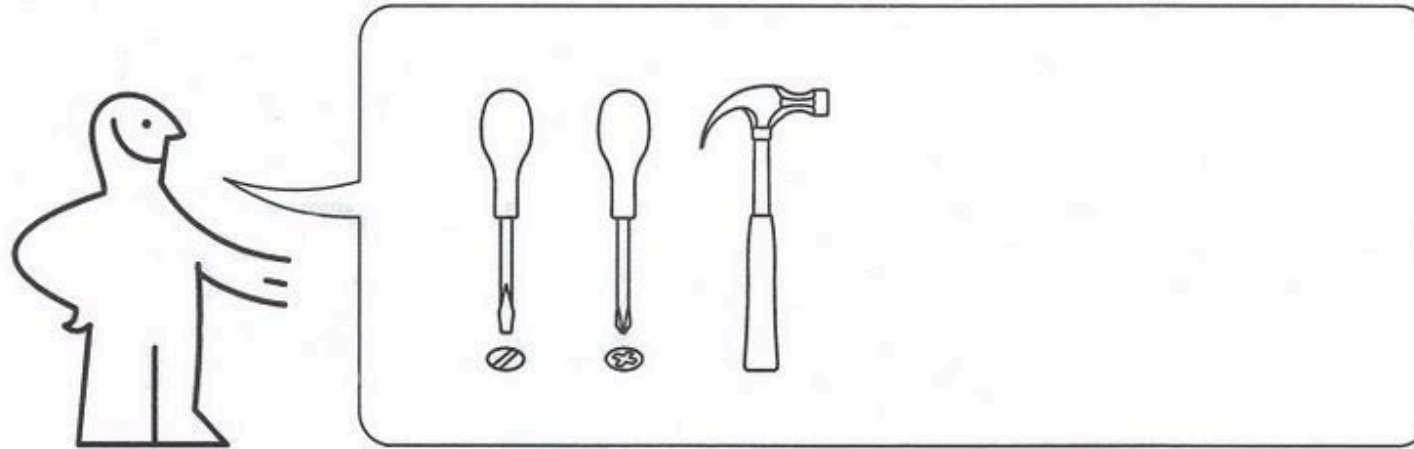
Overall Expectations

- Check-in with Sara Delatte (sara.delatte@wustl.edu, 314-273-1928)
 - **Absences – Must be cleared in advance of the rotation with Dr. Sarah Berg barring unforeseen circumstances (Jeopardy/backup, bereavement, etc.)**
 - Rotators: 9-5p M-F daily (often will leave earlier than 5p)
 - On-call residents/fellows (EM/PEM): Must be able to take overnight call
 - Switching call or presentation dates should be cleared with one of the fellows
- Have a valid WUSTL badge
- Attend rounds daily and on-time
- Complete call as assigned
 - Complete case documentation as soon as possible, but by next day AM rounds
- Rotators here for 4 weeks
 - 3-4 picture projects (1/wk)
 - 1 formal 20 minute presentation

Professionalism

- General
 - Be on-time, business casual dress code, have a white coat available for rounds
- Being a consultant – You’re now the “specialist” on the other end of the phone:
 - We are always happy to see a consult in person, though not all consults need to be seen emergently. If you’re unclear about the reason for a consult, ask the attending
 - Do not criticize, argue, threaten... common sense
 - Staff all consults with the attending prior to providing toxicologic recommendations
 - Our credibility is dependent upon the information you provide and how you provide it!

Nuts and Bolts

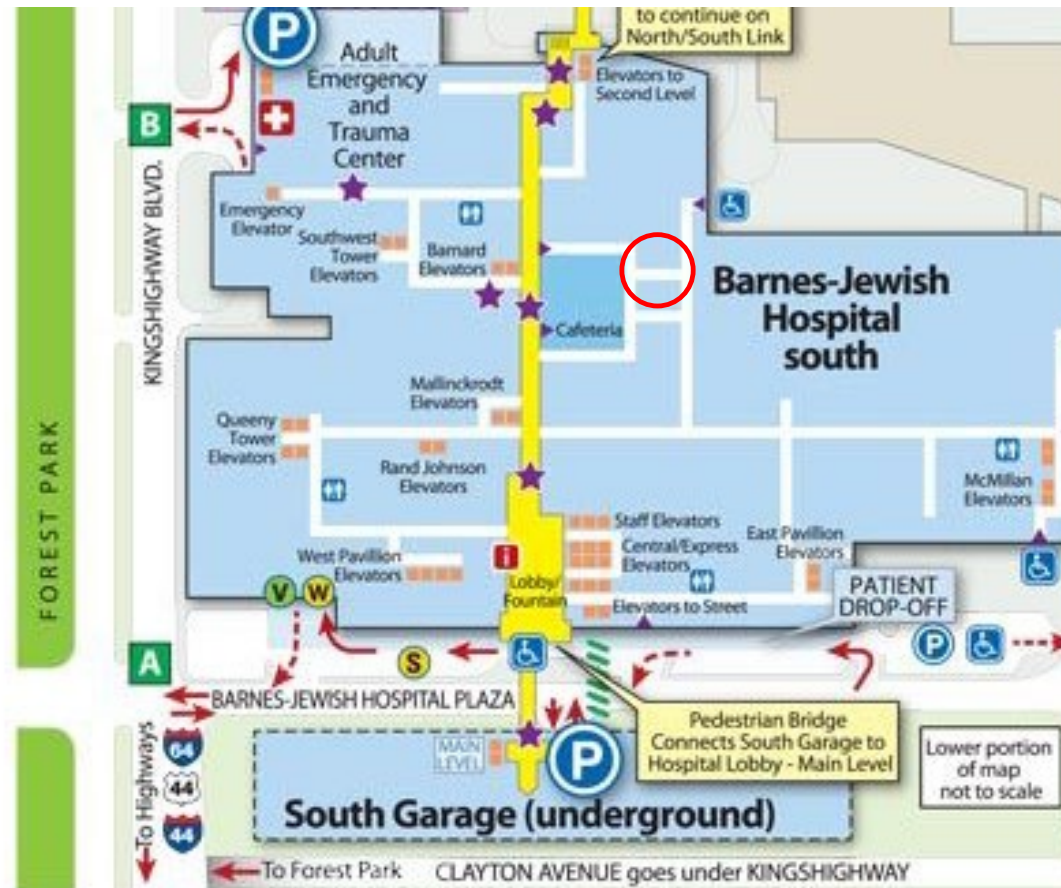


Clinical Service

- Attendings on service change on Monday (7a) and Thursday (12p)
- Inpatient addiction medicine consults: Tues, Thurs, Fri, Sat
- Rounds daily on active toxicology patients
- Rounds PRN on addiction medicine patients

Rounds

- We typically meet in the toxicology fellow office on the 6th floor of Renard



Your first day

- Check-in with the fellow
- Select a date for your end of rotation talk
- Start to think about topics for picture projects (more later)
- Check your call dates on google calendar (fellows, attendings have access to change)

WUEM Toxicology

Today ◀ ▶ ▼ Print Week Month Agenda

| Sun | Mon | Tue | Wed | Thu | Fri | Sat |
|-----------------------------|--|--|-----------------------------|---|-------------------------------|--------------|
| 29 | 30 | 31 | Sep 1 | 2 | 3 | 4 |
| *LISS - ONCALL Forbriger | Forbriger (7:00am) *MULLINS - ONCALL | Ellen Salmo, PA-C Forbriger | Semple FILIP | Ellen Salmo, PA-C FILIP | Semple 8am Tox Clinic - Ba | Forbriger |
| | | | | (12:00pm) *DEVGUN - ONCALL 10am Tox Didactics | | |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| *DEVGUN - ONCALL FILIP | Semple (5:00am) *BAUMGARTNER - ONCALL | Ellen Salmo, PA-C Fellows dinner RUGGERI | FILIP 10am Tox Didactics | Ellen Salmo, PA-C FILIP (BACKUP) Semple | 8am Tox Clinic - Lis | |
| | | | | (12:00pm) *MULLINS - ONCALL | | |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| *MULLINS - ONCALL FILIP | (7:00am) *LISS - ONCALL | Ellen Salmo, PA-C 1pm ToxiCALL--Sem | Semple FILIP | Ellen Salmo, PA-C FILIP (12:00pm) *DRIBBEN - ONCALL | EMII Lamp Fredrickson | Frederickson |

rotator.stltox.com

- Login always “tox”
- Password changes quarterly and is posted in the fellow’s office
- Why password protected? Because it has our personal numbers and schedule
- Contains schedule, assigned modules, rotator documents and a place to upload presentations

[2020-2021 Tox Didactics Folder \(WUSTL Box\)](#)

Upload Presentation

This server is not HIPAA compliant. DO NOT UPLOAD ANY CONTENT CONTAINING PHI!

Accepted file types: doc/x, ppt/x, pdf, jpg, png, gif, tif. Max file size 50MB.

Please name your file: "yyyy-mm-dd Last-name type one-or-two-word-descriptor.extension" (e.g. 2021-01-01 Smith picture project mushroom poisoning.pptx)

Include your name and title (MS3/4, resident / fellow) on the first slide so those of us on Zoom know who you are!

Read our [disclaimer](#)

Please be patient and wait, you will receive a confirmation below the upload button when complete.

Browse... No files selected.

Upload File(s)

[Required Toxicology Modules](#)

[Registration link \(User Group "Washington University Emergency Medicine", Passcode "was"\)](#)

rotator.stltox.com

- Upload your picture projects / final presentations to the rotator site **the night before it is due**
- **Pay attention to the flashing red text to name your file in a way so we know who you are and what your presentation is! If your file isn't named properly you may get missed or skipped!**

[2020-2021 Tox Didactics Folder \(WUSTL Box\)](#)

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Thursday Didactics

- Range of topics and formats
 - National toxicology case conferences (ACMT, AACT)
 - Occupational health lectures
 - Toxicology core-content readings (Goldfrank's)
 - Journal Club
 - Outside events
- Read the material and be prepared to share your opinions!

Taking Call

- We take call for inpatient consults for ED, floor, OB, ICU patients at Barnes Jewish Hospital and St. Louis Children's Hospital
- While on-call:
 - Be within ~30min of the hospital
 - Be ready to come in (sober, have scrubs, etc.)
 - Call back promptly
 - Staff all calls promptly with the attending

Taking Call – Special Circumstances

- Doctor's access line / Children's direct
 - Calls from outside hospitals requesting our advice
 - Please ask the RN coordinating the call to add your attending to the call
- HAZMAT
 - We are HAZMAT consultants for a national rail company (CSX)
 - If you get a call regarding a rail chemical spill, call the service attending right away
 - If unable to get ahold of service attending right away, Dr. Schwarz
- Transfers from IL
 - You may be paged by Toxikon (medical toxicology backup to IL poison center) for patients followed in Illinois being transferred to us
 - Illinois poison center: 312-906-6020
- Telemedicine consults at MBMC
 - These pages should go to a separate pager, but you may get a call from MBMC
 - If patient is at MBMC take down the information and say that the attending on service will get back to you

Taking call – General

- "I'm Dr. _____ with the toxicology service."
- Get as much relevant info as possible (See next slide)
 - History of exposure, scene, other medications in the home, physical exam with a good description of mental status and focusing on potential toxidromes, management thusfar
- "I will staff this with my attending and call you back shortly with recommendations."
- Tox Exam: Mental status, pupils, skin (diaphoresis, flushing, cool), bowel sounds, rigidity / clonus in upper or lower extremities, reflexes (usually lower)

UMass Toxicology Consult

RedCap#

Toxic#

| | | | | | |
|----------------------|---------------|--|------------|--------------------------|--|
| PCC ToxRes CCC | | Exposure(s) | | Labs | |
| Caller | | 1 | | 6 | |
| Hospital | | 2 | | 7 | |
| Ph# | | 3 | | 8 | |
| Patient | | 4 | | 9 | |
| MR# | | 5 | | 10 | |
| Age | Weight | Vitals | EKG | Ingested Time | <input type="checkbox"/> LFTs <input type="checkbox"/> Coags AG _____ <input type="checkbox"/> ASA <input type="checkbox"/> APAP <input type="checkbox"/> Utox <input type="checkbox"/> ETOH <input type="checkbox"/> CK <input type="checkbox"/> Ucg <input type="checkbox"/> UA |
| ♀ | | BP | Rhythm | E.D. Arrival Time | |
| ♂ | | HR | Rate | | |
| | | R | PR | | |
| | | T | QRS | | |
| HPI | | Pox | QTc | | |
| | | Exam | | | Treatment |
| | | MS | | | <input type="checkbox"/> IVF <input type="checkbox"/> Spontaneous Emesis <input type="checkbox"/> Narcan <input type="checkbox"/> AC <input type="checkbox"/> ETT |
| | | Pupils ____ mm nystagmus mydriasis miosis sluggish | | | Questions |
| PMH | | DTRs normal ↑ ↓ clonus Skin WNL dry! Diaphoretic | | | |
| Meds at Home | | Bowel Sounds Normal ↑ ↓ | | | |
| | | | | | Recommendations |

Babu Bird Brush Carey Carreiro Church Liss Neavyn
 Date: ____ / ____ / 20____ Time ____

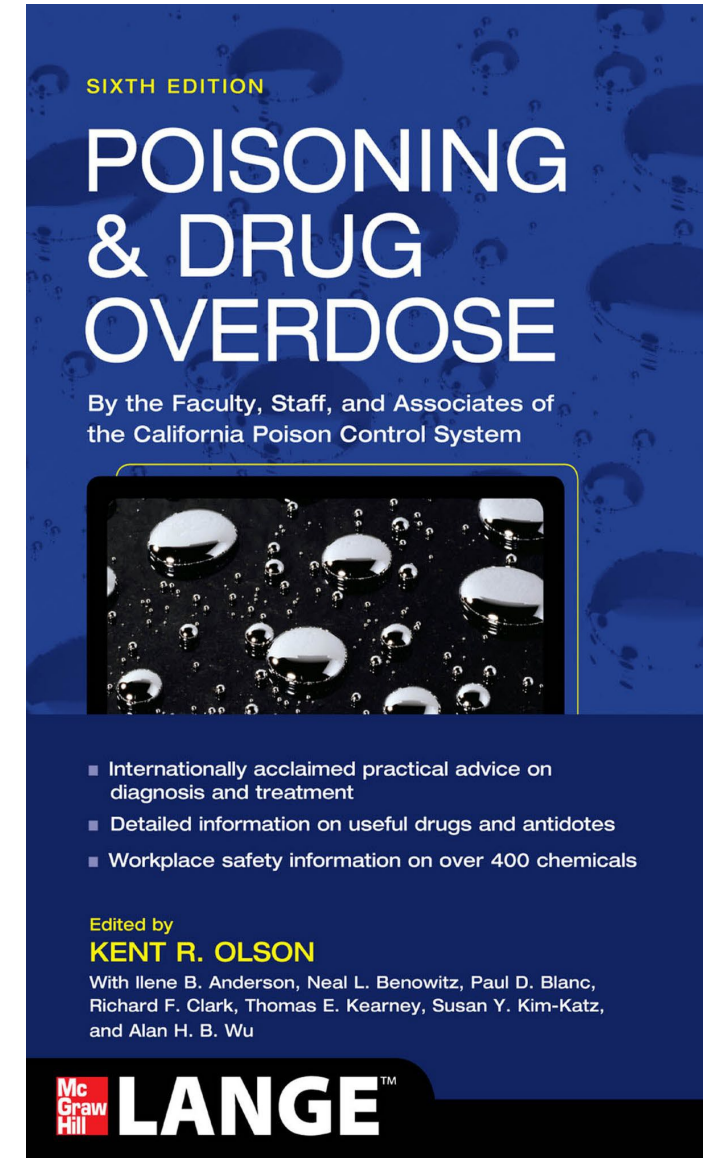
NS ED 0031 Rev 02/23/17

Example of relevant findings for a new consult

Courtesy of Dave Liss

Taking call – General

- Olson's is a helpful resource while on call
- Try to come up with a tentative plan for management
- That being said, staff critically-ill patients right away and all patients promptly



Taking call – Addiction consults

- Ellen Salmo, PA is part of our team and sees addiction consults primarily with the attending on service: Tues & Thurs 9a-230p
- **Consults 230p-5p M-F or all day Saturday are covered by Tox on-call rotator with the attending on service**
- Consults are primarily for patients with an opioid use disorder interested in buprenorphine or methadone medication assisted therapy (MAT)
 - Interested rotators are always welcome to on addiction rounds, but are not expected to

Taking call – Addiction consults

- Addiction consults after 5p can typically be seen the following day, but after taking the call, staff with the attending on service
- Often, we will get calls on Mon, Wed, Sun asking for a new addiction consult. Please politely redirect the team to page psychiatry. If you have any questions or have difficulty with the treating team, discuss with the attending on service.

Taking Call – Notes

- On first day you should be given access to the “.TOX” SmartPhrases
 - TOXNOTE
 - TOXADDNOTE
 - TOXPROGRESS
 - TOXPEDNOTE
 - TOXPEDPROGRESS
- Don't use the SmartText, it's out of date

My Note
Consults

Make sure the note type, service and date of service is correct.
If applicable, change to previous day (e.g. seen just before midnight)

Type: Service: Date of Service:

☐ Cosign Required

Please choose the associated consult orders:

| Date/Time | Order Name | Provider | Specialty | Status |
|-----------|------------|----------|-----------|--------|
| | | | | |

☆ B + abc ↶ ? + ~~Smart SmartText~~ ↵ ↶ ↷ ↻ 🔊 ↵ 📎 👤

.toxnote

| Abbrev | Expansion |
|-----------|--|
| ☆ TOXNOTE | WUSM Toxicology inpatient consult note |

Refresh (Ctrl+F11) Close (Esc)

Taking Call – Notes

This is wrong, there need to be the first and last name of an attending provider

A valid family history has to have a diagnosis and a family relationship.

“No history of diabetes in mother” is acceptable

“No known problems in mother” is acceptable

“No pertinent family history” is not

Fill out remaining smart text links like any other note.

You cannot share notes with attendings, they can only cosign and attest to notes. D/w service attending for the pertinent recommendations you should include in A/P.

Sign your note and select the service attending as cosigner

Standard Disclaimer

This is a medical record. It must be accurate, complete, and appropriate

This was an in-person encounter.

Reason for Consult: Potential toxic exposure

Requesting Provider: No admitting provider for patient encounter.

Subjective

Patient ID: Patient Test, 43 y.o. female

Chief complaint: {chief complaint:40896:..****}

HPI

Allergies:

Allergies

Allergen

Reactions

• Trace Metals

Anaphylaxis

• PATIENT CANT HAVE mn

• Amoxicillin

Rash

Home Medications

(Not in a hospital admission)

Inpatient Medications

Scheduled Medications

Medication

Dose

Route

Frequency

No current facility-administered medications for this visit.

@MEDSPRND0SE@

Active problems:

Patient Active Problem List

Diagnosis

• TSH (thyroid-stimulating hormone deficiency)

• Anemia

• Encounter for supervision of normal first pregnancy in first trimester

Past medical history:

Past Medical History:

Diagnosis

Date

• No pertinent family history

02/20/2020

Past surgical history:

Past Surgical History:

Procedure

Laterality

Date

• NO PAST SURGERIES

Family history:

Family History

Problem

Relation

Age of Onset

• No Known Problems

Mother

• No Known Problems

Father

• No diabetes

{family history:41973}

Social history:

Social History

{yes / no:41974} history of {diagnosis:41975} in {relative:41976}

as appropriately noted above

Taking call – Follow-ups

- If sick / unstable, you may be following on labs / vitals every 1-2hrs
- Minimum daily follow-ups with rounds
- **You will be responsible for knowing about all active toxicology patients when you're on call**
- If for some reason a patient goes from us to IL: Call the IL poison center 312-906-6020

Taking Call – Handoff

- **Collective responsibility to keep the Epic Patient List Handoff up to date every day after rounds.** Pay attention to when we need to see next, the summary and the anticipated date of discharge.
- Make sure this is up to date on Friday and update changes that happen over the weekend

Patient Lists

Edit List Write Handoff Create Progress Note Orders Sign In Sign Out Patient Report

My Lists

_Addiction 8

_Tox 3

_TOX 3 Patients Refreshed just now Search _Tox

| Patient | Summary | To Do | To Do - On Call | Admission Date | Pnd Disch Date |
|-------------|---|--|--|----------------|----------------|
| 16 y.o. / F | Unknown ingestion of "heart, depression, insomnia med" | [X] Toxic [X] MPCC [X] Consult note | SEE NEXT: 11/ ADD: TBD--likely psych admit | 11/ | — |
| 7 y.o. / F | 7yoF with no pmhx who is admitted to PICU with AMS and seizure. | [x] Consult note | — | 11/ | — |
| 12 y.o. / F | Sertraline ingestion #20 50mg tabs. | [x] Toxic- completed [X] MPCC [X] Consult note | SEE NEXT: 11/ ADD: TBD --> Likely psych admit | 11. | — |

Toxic

- Toxic is a registry database for clinical data obtained from toxicology consults seen at the bedside
- We fill out Toxic forms on all our inpatient tox consults
- Ask fellow for help completing. All Toxic forms have to be reviewed by a fellow or attending

Toxic Data Collection Form Version 7.4.4 (Core Only)
CORE Toxic REGISTRY (Effective Date 10/10/2019)
Blue Text are Required Fields & must get completed

Institution (circle one): SLCH BJH Visit # _____ TOXIC WU CODE _____
Patient Name: _____ Patient DOB: _____ DOS: _____
Tox Attending Name: _____ Resident/Fellow: _____
Referring Physician: _____
Diagnosis: 1) _____ 2) _____
3) _____ 4) _____

CORE: CONTEMPORARY ISSUES
*C11.0 Does your case involve an unusual or novel case, or a new drug or formulation? **
☐ Yes [Complete Section Below] ☐ No [Skip to C12.0] ☐ Unknown [Skip to C12.0]
If yes - does this case involve any of the following:

- Use/abuse of a new substance
- Use/abuse of an old substance in a new way
- Use/abuse of an old substance with unanticipated clinical effects
- Other reason (Describe below)
- None of the above

Enter any available name and/or descriptor of the drug (street, agent, and/or class): _____

Describe why you consider this case novel, or of particular interest, for this substance(s), drug class, method of use, or clinical outcome(s): _____

*C12.0 Does your case involve Vaping Induced Pulmonary Injury (VAPI)? If yes, please complete the VAPI Supplemental data entry screen at the end of the core registry. **
☐ Yes ☐ No ☐ Unknown *Definition VAPI: VAPI includes cases of severe pulmonary disease of unclear etiology and a history of e-cigarette (THC oil/extract or nicotine) product use within the last 90 days.*

CORE: DEMOGRAPHIC INFORMATION
DE1.0 Age: _____ Months (if less than 2 yr) _____ Years (if 2-89 years) ☐ Check if >89*
Note: On-line form requires age category and specific age if ≤89 years
DE2.0 Sex: ☐ Male ☐ Female ☐ Pregnant ☐ Not Pregnant ☐ Unknown ☐ Transgender ☐ Male-to-Female ☐ Female-to-Male ☐ Gender Non-conforming*
DE3.0 Race: (Check all that apply)*
☐ American Indian/Alaska Native ☐ Black/African ☐ Native Hawaiian or Pacific Islander
☐ Asian ☐ Caucasian ☐ Mixed

ACMT Toxic Core Registry Data Form V7.4.4 (Core Only)
Effective Date 10/10/19

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Poison Center updates

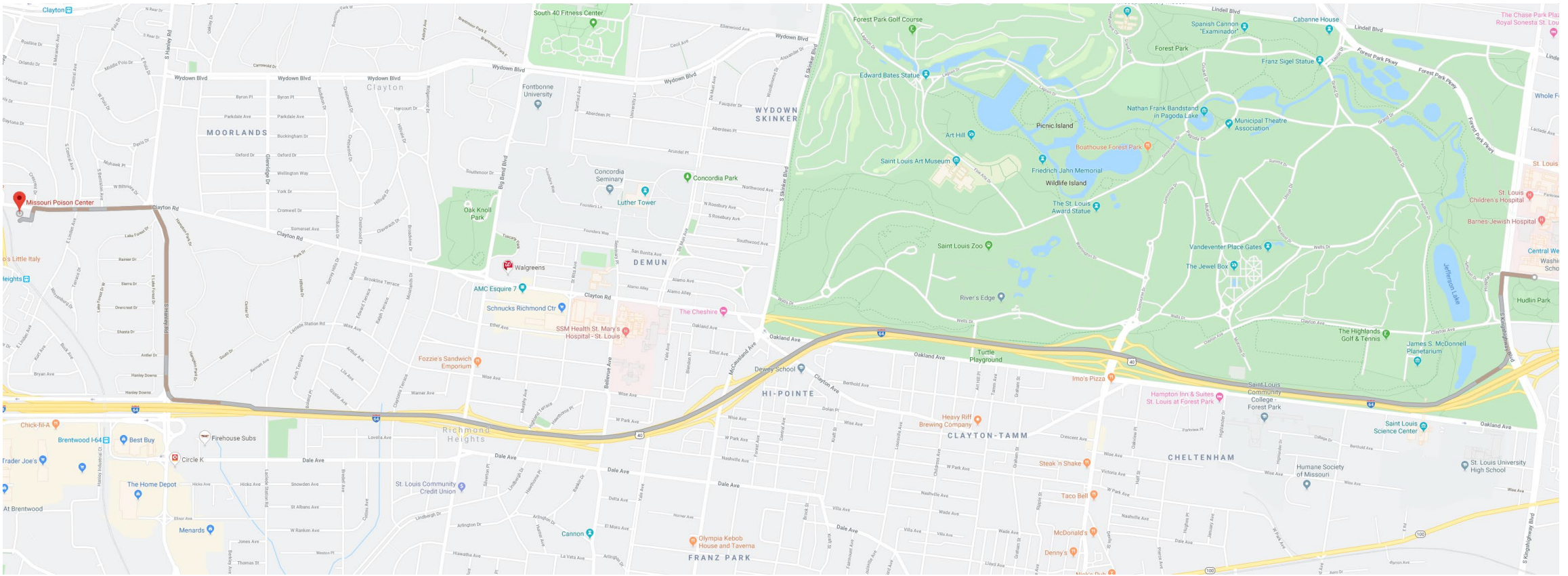
- We update the Missouri poison center on all cases that we follow on our service
- Medical students on service collectively responsible for reporting updates once daily after rounds
- Medical students: Remind us if there were any cases seen and cleared over the weekend that need reporting!

Poison Center

MISSOURI
POISON CENTER
1-800-222-1222

7980 Clayton Rd # 200, St. Louis, MO 63117

- Bring a photo ID to check-in

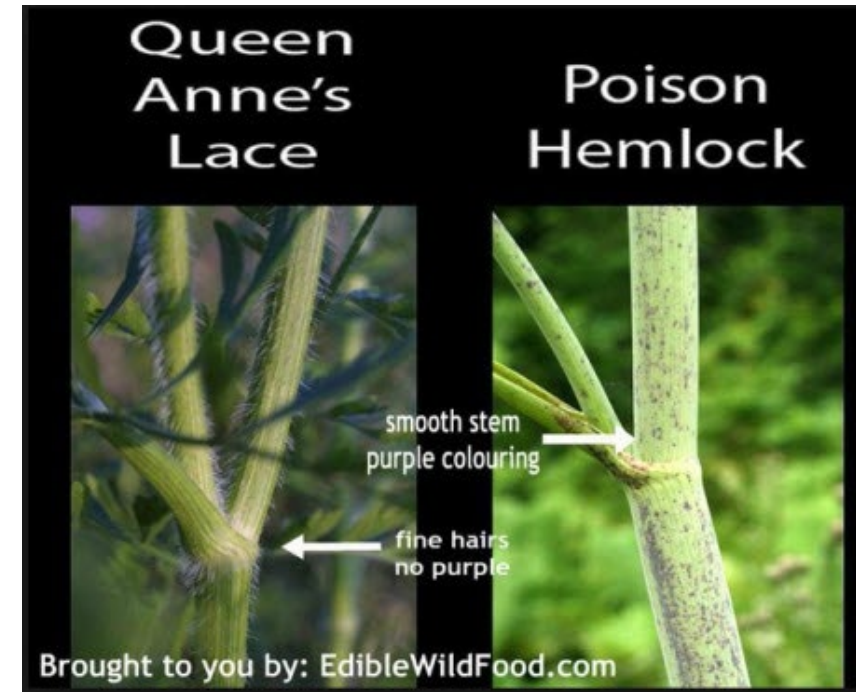


Research opportunities

- Consent forms for case reports (BMJ & BJC) – Consider for interesting or unusual poisonings
- Involvement in ongoing projects
- New projects (CQI, residency scholarly requirements)
 - Poison center research
 - ToxIC

Picture projects

- Short ~5min presentation, ~5-8 slides
- Picture-focused
- Covering interesting topics in toxicology not frequently seen in clinical practice



End of rotation presentation

- Longer ~20 minute presentation on a Toxicology topic
- Discuss your topic with a fellow prior to working on presentation
 - Good idea: Public health implications of arsenic ground water poisoning in Bangladesh
 - Bad idea: Arsenic poisoning (too broad)

- We're always open to suggestions to improve the rotation