Desvenlafaxine overdose and the occurrence of serotonin toxicity, seizures and cardiovascular effects


Context
Desvenlafaxine is used to treat major depression. Desvenlafaxine is also the active metabolite of venlafaxine. Venlafaxine overdose can cause serotonin toxicity, seizures and cardiovascular effects, but there is limited information on desvenlafaxine overdose.

Objective
We aimed at investigating the clinical effects and complications from desvenlafaxine overdose.

Materials and methods
This was a retrospective observational study of desvenlafaxine overdoses over a six-year period. Demographic details, dose and timing of the overdose, together with clinical effects, treatment and complications were extracted from a local hospital network database or the medical records of patients following hospital admission with a desvenlafaxine overdose.
Results
There were 182 cases of desvenlafaxine overdose included in the study. From the 182 cases, 75 were desvenlafaxine (± alcohol) only ingestions and 107 included one or more co-ingested drugs. In single-agent desvenlafaxine ingestions, median age was 25 years (range: 13–68 years) with a median ingested dose of 800 mg (range: 250–3500 mg; interquartile range (IQR): 600–1400 mg), and 54/75 (72%) were female. The Glasgow Coma Score (GCS) was 15 in 68/74 (92%) patients, 13–14 in 5/74 (7%), and was seven in one patient following aspiration. Mild hypertension (systolic blood pressure [BP] > 140-180 mmHg) occurred in 23/71 patients (32%), and tachycardia occurred in 29/74 (39%) patients. There were no abnormal QT intervals and no QRS >120 m s. Serotonin toxicity was diagnosed by the treating physician in 7/75 (9%) patients, but only one of these met the Hunter Serotonin Toxicity Criteria. None of the 75 patients who took desvenlafaxine only (± alcohol) had seizures, were admitted to intensive care or died. In comparison, the 107 patients taking desvenlafaxine in overdose with other medications developed more pronounced toxicity. Generalised seizures occurred in 5/107 (5%), but in three of these cases co-ingestants were possible proconvulsants. Fifteen patients had a GCS ≤9 and none had an abnormal QT or QRS. Severe effects appeared to be associated with coingestants.

Conclusion
Desvenlafaxine overdose causes minor effects with mild hypertension and tachycardia. The risk of seizures or serotonin toxicity is low.

Full text available from: http://dx.doi.org/10.1080/15563650.2016.1223847

Evidence-based recommendations on the use of intravenous lipid emulsion therapy in poisoning

Background
Although intravenous lipid emulsion (ILE) was first used to treat life-threatening local anesthetic (LA) toxicity, its use has expanded to include both non-local anesthetic (non-LA) poisoning and less severe manifestations of toxicity. A collaborative workgroup appraised the literature and provides evidence-based recommendations for the use of ILE in poisoning.

Methods
Following a systematic review of the literature, data were summarized in four publications: LA and non-LA poisoning efficacy, adverse effects, and analytical interferences. Twenty-two toxins or toxin categories and three clinical situations were selected for voting. Voting statements were proposed using a predetermined format. A two-round modified Delphi method was used to reach consensus on the voting statements. Disagreement was quantified using RAND/UCLA Appropriateness Method.

Results
For the management of cardiac arrest, we recommend using ILE with bupivacaine toxicity, while our recommendations are neutral regarding its use for all other toxins. For the management of life-threatening toxicity, (1) as first line therapy, we suggest not to use ILE with toxicity from amitriptyline, non-lipid soluble beta receptor antagonists, bupropion, calcium channel blockers, cocaine, diphenhydramine, lamotrigine, malathion but are neutral for other toxins, (2) as part of treatment modalities, we suggest using ILE in bupivacaine
toxicity if other therapies fail, but are neutral for other toxins, (3) if other therapies fail, we recommend ILE for bupivacaine toxicity and we suggest using ILE for toxicity due to other LAs, amitriptyline, and bupropion, but our recommendations are neutral for all other toxins. In the treatment of non-life-threatening toxicity, recommendations are variable according to the balance of expected risks and benefits for each toxin.

For LA-toxicity we suggest the use of Intralipid® 20% as it is the formulation the most often reported. There is no evidence to support a recommendation for the best formulation of ILE for non-LAs. The voting panel is neutral regarding ILE dosing and infusion duration due to insufficient data for non-LAs. All recommendations were based on very low quality of evidence.

**Conclusion**

Clinical recommendations regarding the use of ILE in poisoning were only possible in a small number of scenarios and were based mainly on very low quality of evidence, balance of expected risks and benefits, adverse effects, laboratory interferences as well as related costs and resources. The workgroup emphasizes that dose-finding and controlled studies reflecting human poisoning scenarios are required to advance knowledge of limitations, indications, adverse effects, effectiveness, and best regimen for ILE treatment.

Full text available from: [http://dx.doi.org/10.1080/15563650.2016.1214275](http://dx.doi.org/10.1080/15563650.2016.1214275)

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**Fatal cobalt toxicity after total hip arthroplasty revision for fractured ceramic components**

**Fox KA, Phillips TM, Yanta JH, Abesamis MG. Clin Toxicol 2016; online early: doi: 10.1080/15563650.2016.1214274:**

**Context**

Post-arthroplasty metallosis, which refers to metallic corrosion and deposition of metallic debris in the periprosthetic soft tissues of the body, is an uncommon complication. Systemic cobalt toxicity post-arthroplasty is extremely rare. The few known fatal cases of cobalt toxicity appear to be a result of replacing shattered ceramic heads with metal-on-metal or metal-on-polyethylene implants. Friction between residual shards of ceramic and cobalt-chromium implants allows release of cobalt into the synovial fluid and bloodstream, resulting in elevated whole blood cobalt levels and potential toxicity.

**Case details**

This is a single patient chart review of a 60-year-old woman with prior ceramic-on-ceramic right total hip arthroplasty complicated by fractured ceramic components and metallosis of the joint. She underwent synovectomy and revision to a metal-on-polyethylene articulation. Ten months post-revision, she presented to the emergency department (ED) with right hip pain, dyspnea, worsening hearing loss, metallic dysgeusia, and weight loss. Chest CTA revealed bilateral pulmonary emboli (PE), and echocardiogram revealed new cardiomyopathy with global left ventricular hypokinesis with an ejection fraction (EF) of 35–40% inconsistent with heart strain from PE. Whole blood cobalt level obtained two days into her admission was 424.3 mcg/L and 24-h urine cobalt level was 4830.5 mcg/L. Although the patient initially clinically improved with regard to her PE and was discharged to home on hospital day 5, she returned 10 days later with a right hip dislocation and underwent closed reduction of the hip. The patient subsequently decompensated, developing cardiogenic shock, and respiratory failure. She went into pulseless electrical activity (PEA) and expired. Autopsy revealed an extensive metallic effusion surrounding the right hip prosthesis that tested positive for cobalt (41,000 mcg/L). There was also cobalt in the heart muscle tissue (2.5
A whole blood cobalt level obtained two days before she expired was 641.6 mcg/L.

**Discussion**

This is a case of fatal cobalt-induced cardiomyopathy in a patient whose ceramic components of a total hip arthroplasty fractured causing metallosis with worsening cobalt toxicity. We recommend that when a fractured device is revised with a prosthesis with cobalt-chromium components, whole blood and urine cobalt measurements should be obtained and periodically monitored to evaluate for rising concentrations. Providers should be aware of clinical signs and symptoms of cobalt toxicity in patients who have prostheses with cobalt-chromium components. If suspected, toxicology and orthopedics should be involved for possible chelation and removal of the prosthesis.

Full text available from: [http://dx.doi.org/10.1080/15563650.2016.1214274](http://dx.doi.org/10.1080/15563650.2016.1214274)

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**Adverse events related to the new psychoactive substance 3-fluorophenmetrazine – results from the Swedish STRIDA project**


**Background**

New psychoactive substances (NPS) are often poorly pharmacologically documented and the production is unregulated, implying high risks for toxic side effects. This report from the STRIDA project describes analytically confirmed non-fatal intoxications involving the phenmetrazine analogue 3-fluorophenmetrazine (3-FPM).

**Study design and methods**

Observational case series of patients with suspected acute NPS exposure requiring hospital care. Blood and urine samples were collected from patients presenting in emergency departments (ED) or intensive care units (ICU), after consultation with the Swedish Poisons Information Centre (PIC). Laboratory analysis was performed by multi-component liquid chromatography-mass spectrometry. Clinical data were collected during PIC consultations and retrieved from medical records.

**Results**

From November 2014 to October 2015, eight cases were registered as 3-FPM or "phenmetrazine" intoxications at the PIC after consultation. During the same period, analysis of STRIDA project samples confirmed 3-FPM use in a total of 19 patients (84% men) aged 22–54 (median 30) years. 3-FPM was detected in 15 out of 19 serum (2.7–1416 ng/mL) and in 14 out of 14 urine (1.0–6857 mug/mmol creatinine) samples. All patients were also tested positive for other psychoactive substances, with benzodiazepines being most common (57% of the cases). Ten patients were monitored in the ED for <4 h, while six needed ICU monitoring of which five were graded as severe intoxications (Poisoning Severity Score 3). Prominent clinical signs were tachycardia (47%), depressed consciousness (42%), agitation/anxiety (37%), delirium (37%), dilated pupils (26%), and seizures (16%). All patients survived.

**Conclusion**

In 19 patients testing positive for 3-FPM, a high incidence of severe clinical features was demonstrated. However, as all patients had also used other psychoactive substances, it was difficult to identify a unique toxidrome for 3-FPM. The results further showed that many 3-FPM intoxications would have been missed, if relying solely on information from PIC.
consultations. These results emphasize the importance of performing bioanalytical investigation in cases of suspected NPS intoxication.

Full text available from: http://dx.doi.org/10.1080/15563650.2016.1211288

Cross neutralization of coral snake venoms by commercial Australian snake antivenoms

Context
Although rare, coral snake envenomation is a serious health threat in Brazil, because of the highly neurotoxic venom and the scarcely available antivenom. The major bottleneck for antivenom production is the low availability of venom. Furthermore, the available serum is not effective against all coral snake species found in Brazil. An alternative to circumvent the lack of venom for serum production and the restricted protection of the actually available antivenom would be of great value. We compared the Brazilian coral snake and mono and polyvalent Australian antivenoms in terms of reactivity and protection.

Methods
The immunoreactivity of venoms from 9 coral snake species were assayed by ELISA and western blot using the Brazilian Micrurus and the Australian pentavalent as well as monovalent anti-Notechis, Oxyuranus and Pseudechis antivenoms. Neutralization assays were performed in mice, using 3 LD₅₀ of the venoms, incubated for 30 minutes with 100 µL of antivenom/animal.

Discussion
All the venoms reacted against the autologous and heterologous antivenoms. Nevertheless, the neutralization assays showed that the coral snake antivenom was only effective against M. corallinus, M. frontalis, M. fulvius, M. nigrocinctus and M. pyrrhocryptus venoms. On the other hand, the Australian pentavalent antivenom neutralized all venoms except the one from M. spixii. A combination of anti-Oxyuranus and Pseudechis monovalent sera, extended the protection to M. altirostris and, partially, to M. ibiboboca. By adding Notechis antivenom to this mixture, we obtained full protection against M. ibiboboca and partial neutralization against M. lemniscatus venoms.

Conclusions
Our findings confirm the limited effectiveness of the Brazilian coral snake antivenom and indicate that antivenoms made from Australian snakes' venoms are an effective alternative for coral snake bites in South America and also in the United States were coral snake antivenom production has been discontinued.

Full text available from: http://dx.doi.org/10.1080/15563650.2016.1222615

Predicting the probability of survival in acute paraquat poisoning

Abstract and full text available from: http://dx.doi.org/10.1016/j.krcp.2016.01.003
Mustard gas exposure and mortality among retired workers at a poisonous gas factory in Japan: a 57-year follow-up cohort study
Abstract and full text available from: http://dx.doi.org/10.1136/oemed-2015-103437

Epidemiologic trends of chemical ocular burns in the United States
Abstract and full text available from: http://dx.doi.org/10.1001/jamaophthalmol.2016.2645

US mortality from carbon monoxide poisoning 1999-2014: accidental and intentional deaths
Hampson NB. Ann Am Thorac Soc 2016; online early: doi: 10.1513/AnnalsATS.201604-318OC:
Abstract and full text available from: http://dx.doi.org/10.1513/AnnalsATS.201604-318OC

Circulatory failure during non-inhaled forms of cyanide intoxication
Abstract and full text available from: http://dx.doi.org/10.1097/SHK.0000000000000732

Use of out-of-hospital ethanol administration to improve outcome in mass methanol outbreaks
Abstract and full text available from: http://dx.doi.org/10.1016/j.annemergmed.2016.01.010

Management of bleeding in patients treated with direct oral anticoagulants
Therapeutic role of hyperinsulinemia/euglycemia in aluminum phosphide poisoning
Abstract and full text available from: http://dx.doi.org/10.1097/MD.0000000000004349

Single versus multiple hyperbaric sessions for carbon monoxide poisoning in a murine model
Abstract and full text available from: http://dx.doi.org/10.1007/s13181-016-0573-5

Reversal agents for direct oral anticoagulants: a focused review
Arbit B, Nishimura M, Hsu JC. Int J Cardiol 2016; 223: 244-50.
Abstract and full text available from: http://dx.doi.org/10.1016/j.ijcard.2016.07.304

Autism spectrum disorder and prenatal exposure to selective serotonin reuptake inhibitors: a systematic review and meta-analysis
Abstract and full text available from: http://dx.doi.org/10.1016/j.reprotox.2016.07.016
TOXICOLOGY

General

American College of Medical Toxicology.
ACMT Position Statement: Hospital privileges for physicians practicing medical toxicology.

The toxicology investigators consortium case registry—the 2015 experience.

Rahimi R, Mehrardestani M.
Toxicology from the perspective of Iranian traditional medicine.

Analytical toxicology

Acute toxicity associated with use of SF-derivations of synthetic cannabinoid receptor agonists with analytical confirmation.

Aszyk J, Kot-Wasik A.
The use of HPLC-Q-TOF-MS for comprehensive screening of drugs and psychoactive substances in hair samples and several "legal highs" products.

Bertholf RL, Sharma R, Reisfield GM.
Predictive value of positive drug screening results in an urban outpatient population.
J Anal Toxicol 2016; online early: doi: 10.1093/jat/bkw088:

Breindahl T, Kimergård A, Andreasen MF, Pedersen DS.
Identification of a new psychoactive substance in seized material: the synthetic opioid n-phenyl-n-[1-(2-phenethyl)-piperidin-4-yl]prop-2-enamide (acrylfentanyl).
Drug Test Anal 2016; online early: doi: 10.1002/dta.2046:

Cequier E, Sakhi AK, Haug LS, Thomsen C.
Development of an ion-pair liquid chromatography-high resolution mass spectrometry method for determination of organophosphate pesticide metabolites in large-scale biomonitoring studies.

Ciegiś P, Zevzikovas A, Zevzikoviene A, Nonentiene P, Kazlauskiene D.
Investigation of a mixture containing alprazolam, codeine and paracetamol using thin-layer and high performance liquid chromatography methods.

Comiran E, Barreto F, Meneghini LZ, Carlos G, Fröehlich PE, Limberger RP.
Method validation and determination of lisdexamfetamine and amphetamine in oral fluid, plasma and urine by LC-MS/MS.
Biomed Chromatogr 2016; online early: doi: 10.1002/bmc.3812:

Dong X, Li L, Ye Y, Zheng L, Jiang Y.
Simultaneous determination of major phytocannabinoids, their main metabolites, and common synthetic cannabinoids in urine samples by LC-MS/MS.

Franz F, Angerer V, Moosmann B, Auswärter V.
Phase I metabolism of the highly potent synthetic cannabinoid MDMLB-CHMICA and detection in human urine samples.
Drug Test Anal 2016; online early: doi: 10.1002/dta.2049:

Giolo JA, Da Silva Cunha Tiritan G, Alves Neves FT.
Evaluation of analytical parameters by mineralization by dry method for lead detection in urine.

Jones MJ, Hernandez BS, Janis GC, Stelzlfig SJ.
A case of U-47700 overdose with laboratory confirmation and metabolite identification.
Clin Toxicol 2016; online early: doi: 10.1080/15563650.2016.1209767:

Keltanen T, Mariottini C, Walta A-M, Rahikainen A-L, Ojanperä I.
Enzymatic assays for detecting lactose and sucrose in urine to reveal intravenous drug abuse with emphasis on buprenorphine.
Drug Test Anal 2016; online early: doi: 10.1002/dta.2050:

Kranawetvogl A, Worek F, Thiermann H, John H.
Modification of human serum albumin by the nerve agent VX: mLC-ESI HR MS/MS method for detection of phosphorylated tyrosine and novel cysteine containing disulfide adducts.

Li M, Chen X, Guo Y, Zhang B, Tang F, Wu X.
Enhanced sensitivity and resolution for the analysis of paralytic shellfish poisoning toxins in water using capillary electrophoresis with amperometric detection and field-amplified sample injection.
Electrophoresis 2016; online early: doi: 10.1002/elps.201600140:

Maas A, Krärmer M, Sydow K, Chen P-S, Dame T, Musshoff F, Diehl BWK, Madea B, Hess C.
Urinary excretion study following consumption of various poppy seed products and investigation of the new potential street heroin marker ATM4G.
Drug Test Anal 2016; online early: doi: 10.1002/dta.2058:

Mallet C, Botch-Jones S.
Illicit drug analysis using two-dimension liquid chromatography/tandem mass spectrometry.
J Anal Toxicol 2016; online early: doi: 10.1093/jat/bkw082:

Masiá A, Suarez-Varela MM, Llopis-Gonzalez A, Picó Y.
Determination of pesticides and veterinary drug residues in food by liquid chromatography-mass spectrometry: a review.

Mata DC.
Stability of 26 sedative hypnotics in six toxicological matrices at different storage conditions.
J Anal Toxicol 2016; online early: doi: 10.1093/jat/bkw084:

Mercadante R, Polledri E, Scurati S, Moretto A, Fustinioni S.
Identification of metabolites of the fungicide penconazole in human urine.


Biomarkers


Carcinogenicity


Cardiotoxicity


Mäenpää J, Peikonén O. Cardiac safety of ophthalmic timolol. Expert Opin Drug Saf 2016; online early:
Dermal toxicity
Goldblatt C, Khumrā S, Booth J, Urbancik K, Grayson ML, Trubiano JA.
Poor reporting and documentation in drug-associated Steven Johnson syndrome and toxic epidermal necrolysis - lessons for medication safety.
Keseroglu HO, Tas-Aygar G, Gönül M, Gököz Ö, Ersoy-Evans S.
A case of Bullous Pemphigoid induced by vildagliptin.
Cutan Ocul Toxicol 2016; online early: doi: 10.1080/15569527.2016.1211670:
Krabbe S, Güll C, Andersen B, Tvede N.
Toxic epidermal necrolysis-like lesions and systemic lupus erythematosus possibly triggered by sulfasalazine.
Case Rep Rheumatol 2016; 2016: 4501937.

Developmental toxicology
Campbell SC, Kast TT, Kamyar M, Robertson J, Sherwin CM.
Calls to a teratogen information service regarding potential exposures in pregnancy and breastfeeding.
BMC Pharmacol Toxicol 2016; 17: 33:
Everson TM, Armstrong DA, Jackson BP, Green BB, Karagas MR, Marsit CJ.
Maternal cadmium, placental PCDHAC1, and fetal development.
Reprod Toxicol 2016; online early: doi: 10.1016/j.reprotox.2016.08.011:
Dietary route of exposure for rabbit developmental toxicity studies.
Toxicol Sci 2016; online early: doi: 10.1093/toxsci/kfw141:
Maternal Lead exposure decreases the levels of brain development and cognition-related proteins with concomitant upsurges of oxidative stress, inflammatory response and apoptosis in the offspring rats.
Neurotoxicology 2016; 56: 150-8:
Early-life exposures to persistent organic pollutants in relation to overweight in preschool children.
Reprod Toxicol 2016; online early: doi: 10.1016/j.reprotox.2016.08.002:
Kobayashi T, Matsuyama T, Takeuchi M, Ito S.
Autism spectrum disorder and prenatal exposure to selective serotonin reuptake inhibitors: a systematic review and meta-analysis.
Reprod Toxicol 2016; 65: 170-8:
Oken E, Rifas-Shiman SL, Amarasiwaradena C, Jayawardene I, Bellinger DC, Hibbeln JR, Wright RO, Gillman MW.
Maternal prenatal fish consumption and cognition in mid childhood: mercury, fatty acids, and selenium.
Neurotoxicol Teratol 2016; online early: doi: 10.1016/j.ntt.2016.07.001:
Effects of pre- and postnatal exposure to 1880–1900MHz DECT base radiation on development in the rat.
Reprod Toxicol 2016; 65: 248-62:
Maternal exposure to diluted diesel engine exhaust alters placental function and induces intergenerational effects in rabbits.
Part Fibre Toxicol 2016; 13: 39:
Yates LM, Thomas S HL.
Prescribing medicines in pregnancy.
Medicine (United Kingdom) 2016; 44: 438-43:
Zu CZ, Kuroki M, Hirako A, Takeuchi T, Furukawa S, Sugiyama A.
Effect of methotrexate exposure at middle gestation on the inner plate of the ocular cup and lens in the rat fetus.
J Toxicol Pathol 2016; 29: 173-80:

Driving under the influence of alcohol and other drugs
Celeste MA.
A judicial perspective on expert testimony in marijuana driving cases.
Rudisill TM, Zhu M, Kelley GA, Pilkerton C, Rudisill BR.
Medication use and the risk of motor vehicle collisions among licensed drivers: a systematic review.
Accid Anal Prev 2016; 96: 255-70:

Epidemiology
Ahmadabadi F, Davoodi A, Ahmadabadi F, Rezazadeh H.
Unintentional poisoning in children admitted to Tabriz pediatric hospital.
Pharm Sci 2016; 22: 132-7:
Alves EA, Brandão P, Magalhães T, Carvalho F, Dinis-Oliveira RJ.
Fatal intoxications in the north of Portugal: 12 years of retrospective analysis.
Curr Drug Saf 2016; online early: PM:27457768:
Epidemiology of animal poisoning: An overview on the features and spatio-temporal distribution of the phenomenon in the north-eastern Italian regions.
Forensic Sci Int 2016; 266: 440-8:
Bishop-Freeman SC, Feaster MS, Beal J, Miller A, Hargrove RL, Brower JO, Winecker RE.
Loperamide-related deaths in North Carolina.
J Anal Toxicol 2016; online early: doi: 10.1093/jat/bkw069:


**Forensic toxicology**


Kokatanur CM.
Pattern of acute poisoning in Karad.

Le Garff E, Tournel G, Becquart C, Cottencin O, Dupin N, Delaporte E, Hedouin V.
Extensive necrotic purpura in levamisole-adulterated cocaine abuse - a case report.

Pichini S, Marchei E, Pacifici R, Marinelli E, Busardò FP.
Chemsex intoxication involving sildenafil as an adulterant of GHB.
Drug Test Anal  2016; online early: doi: 10.1002/dta.2054:

Punia RK, Meena PR.
Profile of unnatural deaths in paediatric age group at SMS medical college and associated hospitals Jaipur - An autopsy based study.

Reddy A, Aridoss S, Kagne RN, Balaraman R, Kumaran M.
Profile of acute poisoning fatalities at Putudcherry, Southern India.

Remane D, Wissenbach DK, Peters FT.
Recent advances of liquid chromatography-(tandem) mass spectrometry in clinical and forensic toxicology — An update.
Clin Biochem 2016; online early: doi: 10.1016/j.clinbiochem.2016.07.010:

Rojek S, Bolechala F, Kula K, Maciów-Glab M, Klys M.
Medicolegal aspects of PMA related deaths.

Ruan X, Mancuso KF, Kaye AD.
Determination of the unbound fraction of R- and S-methadone in human brain.

Sharma R, Gupta N, Kumar R, Panigrahi MK.
An autopsy based-retrospective study of corrosive poisoning cases.

Shintani-Ishida K, Kakuichi Y, Ikegaya H.
Successful quantification of 4’-methyl-alpha-pyrrolidino-hexanophenone (MPH) in human urine using LC-TOF-MS in an autopsy case.
Forensic Toxicol 2016; 34: 398-402.

Stoll S, Roider G, Keil W.
Concentrations of cyanide in blood samples of corpses after smoke inhalation of varying origin.

Tiscione NB, Miller R, Shan X, Sprague J, Yeatman DT.
An efficient, robust method for the determination of cannabinoids in whole blood by LC-MS-MS.

Hepatotoxicity
Bessone F, Hernandez N, Roma MG, Riduejo E, Mendizabal M, Medina-Cáliz I, Robles-Díaz M, Lucena MI, Andrade RJ.
Hepatotoxicity induced by coxibs: how concerned should we be?

Çalıkkan D, Koca T, Doğuç DK, Özgöçmen M, Akçam M.
The protective effect of pomegranate juice in paracetamol-induced acute hepatotoxicity in rats.

Dogan N, Akçam M, Koca T, Kumbul Doğuç D, Özgöçmen M.
The protective effect of Capparis ovata in acute hepatotoxicity induced by paracetamol.

Impact of e-cigarette liquid with or without nicotine on liver function in adult rats.

Gökçe H, Akcan R, Celikel A, Zeren C, Ortanca I, Demirkiran S.
Hepatotoxicity of illegal home-made alcohols.

Ji X, Ku T, Zhu N, Ning X, Wei W, Li G, Sang N.
Potential hepatic toxicity of bupropizin at sublethal concentrations: ROS-mediated conversion of energy metabolism.
J Hazard Mater  2016; 320: 176-86.

Oghabian Z, Afshar A, Rahimi HR.
Hepatotoxicity due to zinc phosphate poisoning in two patients: role of N-acetylcysteine.

Ramaswami A, Rosen DJ, Chu J, Wistinghausen B, Arnon R.
Fulminant liver failure in a child with β-thalassemia on deferasirox: a case report.
J Pediatr Hematol Oncol  2016; online early: doi: 10.1097/MPH.0000000000000654:

Rizkallah J, Kuriachan V, Brent Mitchell L.
The use of dronedarone for recurrent ventricular tachycardia: a case report and review of the literature.

Roy DN, Goswami R.
Drugs of abuse and addiction: a slippery slope toward liver injury.

Regorafenib induced severe toxic hepatitis: characterization and discussion.
Liver Int  2016; online early: doi: 10.1111/liv.13217:

Sienionow K, Teul J, Dragowski P, Palka J, Mitlyk W.
New potential biomarkers of acetaminophen-induced hepatotoxicity.

Tong HY, Medrano N, Borboa AM, Ruiz JA, Martinez AM, Martín J, Quintana M, García S, Carcas AJ, Ramírez E.
Hepatotoxicity induced by acute and chronic paracetamol overdose in children: where do we stand?

**Inhalation toxicity**


**Kinetics**


**Mechanisms of toxicity**


J Neurosurg Anesthesiol 2016; online early: doi: 10.1097/ANA.0000000000000348:

**Medication errors**


**Metabolism**


**Nephrotoxicity**


Singh RR, Uraiya D, Kumar A, Tripathi N.


**Neurotoxicity**


Zhorov BS, Dong K. Elucidation of pyrethroid and DDT receptor sites in the voltage-gated sodium channel. Neurotoxicology 2016; online early: doi: 10.1016/j.neuro.2016.08.013:

**Occupational toxicology**


**Ocular toxicity**


**Packaging**


**Paediatric toxicology**


McArtney R, Atkinson A. Audit of paracetamol prescription in paediatric surgical patients. Arch Dis Child 2016; 101: e2:

Moffett BS, Garner A, Zapata T, Orcutt J, Niu M, Lopez KN. Serum digoxin concentrations and clinical signs and symptoms of digoxin toxicity in the paediatric population. Cardiol Young 2016; 26: 493-8:


Punjia RK, Meena PR. Profile of unnatural deaths in paediatric age group at SMS medical college and associated hospitals Jaipur - An autopsy based study. Med Leg Update 2016; 16: 85-7:


**Psychiatric aspects**


**Reprotoxicity**

Chow E, Mahalingiah S. Cosmetics use and age at menopause: is there a connection? Fertil Steril 2016; online early: doi: 10.1016/j.fertnstert.2016.08.020:


**Risk assessment**


**MANAGEMENT**

General


Beauchamp GA, Hendrickson RG, Hatten BW.
Endotracheal intubation for toxicologic exposures: a retrospective review of Toxicology Investigators Consortium (ToxIC) Cases. J Emerg Med 2016; online early; doi: 10.1016/j.jemermed.2016.05.056:
Douma MJ, Brindley PG. Resuscitation following opioid overdose: old ideas and new threats. J Crit Care 2016; online early; doi: 10.1016/j.jcrc.2016.06.025:
Howard SC, McCormick J, Pui C-H, Buddington RK, Harvey RD. Preventing and managing toxicities of high-dose methotrexate. Oncologist 2016; online early; doi: 10.1634/theoncologist.2015-0164:
Liente C, Sorodoc V, Tuchilus C, Cimpoiesu D, Jaba E. Biomarkers, lactate, and clinical scores as outcome predictors in systemic poison exposures. Hum Exp Toxicol 2016; online early; doi: 10.1177/0960327166608666:
Montgomery L, Seys J, Mees J. To pee, or not to pee: a review on envenomation and treatment in European jellyfish species. Mar Drugs 2016; 14: 127.
Rogers KC, Shelton MP, Finks S. Reversal agents for direct oral anticoagulants: understanding new and upcoming options. Cardiol Rev 2016; online early; doi: 10.1097/CRD.0000000000000118:

**Antidotes**

**Acetylcysteine**


**Activated charcoal**


**Antivenom**


Lasoff DR, Ruha A-M, Curry SC, Koh C, Clark RF.
A new F(ab’); antivenom for the treatment of crotaline envenomation in children.

**Fab fragments**
Chan BS, Chiew A, Isbister GK, O'Leary M, Buckley NA. Authors' responses to letter to the editor re: "Efficacy and effectiveness of anti-digoxin antibodies in chronic digoxin poisonings from the DORA study (ATOM-1)."
Clin Toxicol 2016; online early: doi: 10.1080/15563650.2016.1214278:

Wang JJ, Regina A, Hoffman RS. Letter in response to "Efficacy and effectiveness of anti-digoxin antibodies in chronic digoxin poisonings from the DORA study (ATOM-1)."
Clin Toxicol 2016; online early: doi: 10.1080/15563650.2016.1214276:

**Hyperbaric oxygen therapy**
Carstairs SD, Miller AD, Minns AB, Duhcink J, Riffenburgh RH, Clark RF, Tomaszewski CA. Single versus multiple hyperbaric sessions for carbon monoxide poisoning in a murine model.


Uzkeser M, Kocak AO, Akbas I, Polat G, Kantarcı M, Emet M, Aslan S. Dual-energy CT shows brain ischemia and hyperbaric oxygen therapy efficacy in acute CO intoxication.

**Lipid emulsion therapy**
Avçıl M, Kapçı M, Yavasoglu I, Kantekin B, Akpek M. Simultaneous use of intravenous lipid emulsion and plasma exchange therapies in the multiple drug toxicity.
Med Principles Pract 2016; online early: doi: 10.1159/000449250:

Cober MP. Repackaging of intravenous fat emulsions: a clinical conundrum.

Clin Toxicol 2016; online early: doi: 10.1080/15563650.2016.1214275:

Mullins ME. Advancing the science of antidotal use of lipid emulsion.
Clin Toxicol 2016; online early: doi: 10.1080/15563650.2016.1216558:


**Naloxone**

Rudski J. Public perspectives on expanding naloxone access to reverse opioid overdoses.
Subst Use Misuse 2016; 51: 1771-80.

**Barbiturates**
Martin K, Katz A. The role of barbiturates for alcohol withdrawal syndrome.

**Erythropoietin**
Pakravan M, Esfandiarani H, Sanjari N, Ghahari E. Erythropoietin as an adjunctive treatment for methanol-induced toxic optic neuropathy.

**Ethanol**

**Extracorporeal treatments**
Papacostas MF, Hoge M, Baum M, Davila SZ. Use of continuous renal replacement therapy in salicylate toxicity: a case report and review of the literature.
Heart Lung 2016; online early: doi: 10.1016/j.hrtlng.2016.07.003:

**Haemodialysis**
Semin Dial 2016; online early: doi: 10.1111/sdi.12520:

May F, El-Helali N, Timsit J-F, Misset B. Absence of obvious link between supra-therapeutic serum levels of β-lactams and clinical toxicity in ICU patients with acute renal failure treated with intermittent hemodialysis.
Crit Care 2016; 20: 220.

**MARS**
Halofuginone
Calik M, Yavas G, Calik SG, Yavas C, Celik ZE, Sargon MF, Esme H.

Humic acids
Krempaska K, Vasko L, Vaskova J.
Humic acids as therapeutic compounds in lead intoxication. Curr Clin Pharmacol 2016; online early: PMID:27526696:

Hydrocortisone
Efficacy of intravenous hydrocortisone administered 2–4 h prior to antivenom as prophylaxis against adverse drug reactions to snake antivenom in Sri Lanka: an open labelled randomized controlled trial. Toxicon 2016; 120: 159-65.

Lipic acid
Shukla S, Sharma Y, Shrivastava S.

Methylphenidate

Neurosteroids
Reddy DS.

Opioid maintenance therapy
Cirillo C, Francis K.
Does breast milk affect neonatal abstinence syndrome severity, the need for pharmacologic therapy, and length of stay for infants of mothers on opioid maintenance therapy during pregnancy? Adv Neonatal Care 2016; online early: doi: 10.1097/ANC.0000000000000330:


Noormohammadi A.

Ruan X, Bordelon G, Kaye AD.


DRUGS
General
Anon.

Alenezi S, Abramson J, Smith C, Sammons H, Conroy S.
Interventions made by UK pharmacists to minimise risk from paediatric prescribing errors. Arch Dis Child 2016; 101: e2.

Avcil M, Kapçi M, Yavasoglu I, Kantekin B, Akpek M.
Simultaneous use of intravenous lipid emulsion and plasma exchange therapies in the multiple drug toxicity. Med Principles Pract 2016; online early: doi: 10.1159/000449250:

Bertholf RL, Sharma R, Reisfield GM.


Collier H, Nasim M, Gandhi A.
Prescribing in obese children: how good are paediatricians? Arch Dis Child 2016; online early: doi: 10.1136/archdischild-2016-310603:

Davis-Ajami ML, Fink JC, Wu J.

Goldblatt C, Khumra S, Booth J, Urbancic K, Grayson ML, Trubiano JA.

Kosky CA, Bonakis A, Yogendran A, Hettiarachchi G, Dargan PI, Williams AJ.
Urine toxicology in adults evaluated for a central hypersomnia and how the results modify the physician's diagnosis. J Clin Sleep Med 2016; online early: PMID:27568897:
Lin R, Yin G.  
Nonparametric overdose control with late-onset toxicity in phase I clinical trials.  
Biostatistics 2016; online early: doi: 10.1093/biostatistics/kow038:

Masiá A, Suarez-Varela MM, Llopis-Gonzalez A, Picó Y.  
Determination of pesticides and veterinary drug residues in food by liquid chromatography-mass spectrometry: a review.  

Mortensen KE.  
Oesophageal obstruction from a pharmacobezoar resulting in death.  
Basic Clin Pharmacol Toxicol 2016; online early: doi: 10.1111/bcpt.12662:

Medication errors among health professionals in Nigeria: a national survey.  

Rosano TG, Ohouo PY, LeQue JJ, Freeto SM, Wood M.  
Definitive drug and metabolite screening in urine by UPLC-MS-MS using a novel calibration technique.  
J Anal Toxicol 2016; online early: doi: 10.1093/jat/bkw050:

Rudisill TM, Zhu M, Kelley GA, Pilker ton C, Rudisill BR.  
Medication use and the risk of motor vehicle collisions among licensed drivers: a systematic review.  

Stamper B, Gul W, Godfrey M, Gul SW, ElSo hly MA.  
LC-MS-MS method for the analysis of miscellaneous drugs in wastewater during football games III.  
J Anal Toxicol 2016; online early: doi: 10.1093/jat/bkw081:

Steuer AE, Poetzsch M, Kraemer T.  
MALDI-MS drug analysis in biological samples: opportunities and challenges.  
Bioanalysis 2016; 8: 1859-78.

Noninvasive end tidal CO₂ is unhelpful in the prediction of complications in deliberate drug poisoning.  

Yates LM, Thomas S HL.  
Prescribing medicines in pregnancy.  
Medicine (United Kingdom) 2016; 44: 438-43.

Zhang J, Doshi U, Suzuki A, Chang C-W, Borlak J, Li AP, Tong W.  
Evaluation of multiple mechanism-based toxicity endpoints in primary cultured human hepatocytes for the identification of drugs with clinical hepatotoxicity: results from 152 marketed drugs with known liver injury profiles.  

Acetaminophen (see paracetamol)

Alpha 2 agonists

Clonidine  
Cates AL, Wheatley SM, Katz KD.  
Clonidine overdose in a toddler due to accidental ingestion of a compounding cream.  
Pediatr Emerg Care. 2016; online early: doi: 10.1097/PEC.0000000000000790:

Amfetamines and MDMA (ecstasy)

Comir an E, Barreto F, Meneghini LZ, Carlos G, Fröhlich PE, Lim berger RP.  
Method validation and determination of lisdexamfetamine and amphetamine in oral fluid, plasma and urine by LC-MS/MS.  
Biomed Chromatogr 2016; online early: doi: 10.1002/bmc.3812:

Methylphenidate substitution for methamphetamine addiction and implications for future randomized clinical trials: a unique case series.  

Quinn B, Stoove M, Dietze P.  
One-year changes in methamphetamine use, dependence and remission in a community-recruited cohort.  

Spence AL, Guerin GF, Goeders NE.  
The differential effects of alprazolam and oxazepam on methamphetamine self-administration in rats.  

Anaesthetics

Jackson WM, Gray CD, Jiang D, Schaefer ML, Connor C, Mintz CD.  
Molecular mechanisms of anesthetic neurotoxicity: a review of the current literature.  
J Neurosurg Anesthesiol 2016; online early: doi: 10.1097/ANA.0000000000000348:

Propofol  
Walli A, Poulsen TD, Dam M, Børglum J.  
Propofol infusion syndrome in refractory status epilepticus: a case report and topical review.  

Antiarrhythmic drugs

Dronedarone  
Rizkallah J, Kuriachan V, Brent Mitchell L.  
The use of dronedarone for recurrent ventricular tachycardia: a case report and review of the literature.  

Antibiotics

Automated identification of antibiotic overdoses and adverse drug events via analysis of prescribing alerts and medication administration records.  
J Am Med Inform Assoc 2016; online early: doi: 10.1093/jamia/ocw086:

May F, El-Helali N, Timsit J-F, Misset B.  
Absence of obvious link between supra-therapeutic serum levels of β-lactams and clinical toxicity in ICU patients with acute renal failure treated with intermittent hemodialysis.  
Crit Care 2016; 20: 220.

Amikacin  

Dapsone
Sawlani KK, Chaudhary SC, Singh J, Raja DC, Mishra S, Goel MM.

Metronidazole
Roy U, Panwar A, Pandit A, Das SK, Joshi B.

Anticoagulants
Arbit B, Nishimura M, Hsu JC.

Levi M.

Rogers KC, Shelton MP, Finks S.
Reversal agents for direct oral anticoagulants: understanding new and upcoming options. Cardiol Rev 2016; online early: doi: 10.1097/CRD.0000000000001118:

Voukalis C, Lip GY, Shantsila E.

Anticonvulsants
Phenytoin
Forrester MB.

Qi X, Wang Q.

Valproate
Dadpour B, Abbaspour H, Pourzahed A, Moghadam AB.

Antidepressants
Carvalho AF, Sharma MS, Brunoni AR, Vieta E, Fava GA.
The safety, tolerability and risks associated with the use of newer generation antidepressant drugs: a critical review of the literature. Psychother Psychosom 2016; 85: 270-88.

Bupropion
Farias-Moeller R, Carpenter JL.
Coma with absent brainstem reflexes and burst suppression after bupropion overdose in a child. Neurocrit Care 2016; online early: doi: 10.1007/s12028-016-0307-1:

Stassinos GL, Klein-Schwartz W.

Antifungal drugs
Posaconazole
Lindsay PJ, Bond SE, Prac DP, Norris R, Marriott D1, Miyakis S.
Posaconazole therapeutic drug monitoring in a regional hospital setting. Ther Drug Monit 2016; online early: doi: 10.1097/FTD.0000000000000334:

Antihistamines
Alimemazine
Gomila I, López-Corominas V, Pellegrini M, Quesada L, Miravet E, Pichini S, Barceló B.

Antimalarial drugs
Hydroxychloroquine
Browning DJ.

Melles RB, Marmor MF.

O’Laughlin JP, Mehta PH, Wong BC.

Antineoplastic drugs
Methotrexate
Howard SC, McCormick J, Pui C-H, Buddington RK, Harvey RD.

Zu CZ, Kuroki M, Hirako A, Takeuchi T, Furukawa S, Sugiyama A.

Pazopanib
Clinical pharmacology, drug-drug interactions and safety of pazopanib: a review.
Expert Opin Drug Metab Toxicol 2016; online early: doi: 10.1080/17425255.2016.1225038:

Regorafenib
Regorafenib induced severe toxic hepatitis: characterization and discussion.
Liver Int 2016; online early: doi: 10.1111/liv.13217:

Antipsychotics
Divac N, Stojanovic R, Savic Vujovic K, Medic B, Damjanovic A, Prostran M.
The efficacy and safety of antipsychotic medications in the treatment of psychosis in patients with Parkinson’s disease.
Behav Neurol 2016; 2016: 4938154.

Clotiapine
Lurie Y, Gopher A, Hoffmann Y, Bentur Y.
Pediatric clotiapine poisoning: clinical manifestations and toxicokinetics.

Iloperidone
Amon J, Stephen E, El-Malakh RS.
A case of iloperidone overdose in a 27-year-old man with cocaine abuse.
SAGE Open Med Case Rep 2016; 4: 2050313X16660485.

Quetiapine
Strickland EC, Cummings OT, Morris AA, Clinskases A, McIntire GL.
Quetiapine carboxylic acid and quetiapine sulfoxide prevalence in patient urine.
J Anal Toxicol 2016; online early: doi: 10.1093/jat/bkw078:

Benzodiazepines
Horsfall JT, Sprague JE.
The pharmacology & toxicity of the "Holy Trinity".

Etizolam
Arens AM, van Wijk XM, Vo KT, Lynch KL, Wu AH, Smollin CG.
Adverse effects from counterfeit alprazolam tablets.

Beta blockers
Mugoša S, Djordjevic N, Djukanovic N, Protić D, Bukumiric Z, Radosavljevic I, Boškovic A, Todorovic Z.
Factors affecting the development of adverse drug reactions to β-blockers in hospitalized cardiac patient population.

Caffeine
Collins GT, Abbott M, Galindo K, Rush EL, Rice KC, France CP.
Discriminative stimulus effects of binary drug mixtures: studies with cocaine, MDPV, and caffeine.
J Pharmocol Exp Ther 2016; online early: doi: 10.1124/jpet.116.234252:

Droste N, Miller P, Pennay A, Zinkiewicz L, Lubman DI.
Environmental contexts of combined alcohol and energy drink use: associations with intoxication in licensed venues.

Calcium channel blockers
Amlodipine
Reuter-Rice KE, Peterson BM.
Conventional and unconventional lifesaving therapies in an adolescent with amlodipine ingestion.

Nifedipine
Murphy CM, Williams C, Quinn ME, Nicholson B, Shoe T, Beuhler MC, Kerns WP, II.
Pilot trial of intravenous lipid emulsion treatment for severe nifedipine-induced shock.

Cannabis (marijuana)
Celeste MA.
A judicial perspective on expert testimony in marijuana driving cases.

D Souza DC, Radhakrishnan R, Sherif M, Cortes-Brones J, Cahill J, Gupta S, Skosnik PD, Ranganathan M.
Cannabinoïds and psychosis.
Curr Pharm Des 2016; online early: PMID:27568729:

Greoolick DA.
Pharmacological treatment of cannabis-related disorders: a narrative review.
Curr Pharm Des 2016; online early: PMID:27549375:

Greenan G, Ahmad SB, Anders MG, Leeser A, Bromberg JS, Niederhaus SV.
Recreational marijuana use is not associated with worse outcomes after renal transplantation.
Clin Transplant 2016; online early: doi: 10.1111/ctr.12828:

Martini N.
Potion of poison? Cannabis oil.

Meier E, Hatsuakami DK.
A review of the additive health risk of cannabis and tobacco co-use.
Drug Alcohol Depend 2016; 166: 6-12.

Pélissier F, Claudet I, Gandia-Mailly P, Benyamina A, Franchitto N.
Cannabis hyperemesis syndrome in the emergency department: how can a specialized addiction team be useful? A pilot study.

Tiscione NB, Miller R, Shan X, Sprague J, Yeatman DT.
An efficient, robust method for the determination of cannabinoids in whole blood by LC–MS–MS.
Wang GS, Le Lait M-C, Deakyne SJ, Bronstein AC, Bajaj L, Roosevelt G.
Wang GS.
Food for thought.
Clin Toxicol 2016; online early: doi: 10.1080/15563650.2016.1214279:

**Cocaine**
Amon J, Stephen E, El-Mallakh RS.
A case of isoperidone overdose in a 27-year-old man with cocaine abuse.
SAGE Open Med Case Rep 2016; 4: 2050313X16660485.

Collins GT, Abbott M, Galindo K, Rush EL, Rice KC, France CP.
Discriminative stimulus effects of binary drug mixtures: studies with cocaine, MDPV, and caffeine.
J Pharmocol Exp Ther 2016; online early: doi: 10.1124/jpet.124252:

Le Garff E, Tourtel G, Becquart C, Cottencin O, Dupin N, Delaporte E, Hedouin V.
Extensive necrotic purpura in levamisole-adulterated cocaine abuse - a case report.

Lee C-T, Chen J, Kindberg AA, Bendriem RM, Spivak CE, Williams MP, Richie CT, Handreck A, Mallon BS, Lupica CR, Lin D-T, Harvey BK, Mash DC, Freed WJ.
CYP3A5 mediates effects of cocaine on human neurocorticogenesis: studies using an in vitro 3D self-organized hPSC model with a single cortex-like unit.
Neuropsychopharmacology 2016; online early: doi: 10.1038/npp.2016.156:

Neuropsychopharmacology 2016; online early: doi: 10.1038/npp.2016.155:

**Colchicine**
Mandhare A, Banerjee P.
Therapeutic use of colchicine and its derivatives: a patent review.
Expert Opin Ther Pat 2016; online early; doi: 10.1080/15563650.2016.1214268:

**Corticosteroids**
Aljebab F, Choonara I, Conroy S.
Long-course oral corticosteroid toxicity in children.
Arch Dis Child 2016; 101: e2.

**Deferasirox**
Ramawami A, Rosen DJ, Chu J, Wistinghausen B, Arnon R.
Fulminant liver failure in a child with β-thalassemia on deferasirox: a case report.
J Pediatr Hematol Oncol 2016; online early: doi: 10.1097/MPH.0000000000000654:

**Dextromethorphan**
LaRocca T.
A curious cause of positive PCP test results: dextromethorphan intoxication.

**Digoxin**
Chan BS, Chiew A, Isbister GK, O'Leary M, Buckley NA.
Authors’ responses to letter to the editor re: “Efficacy and effectiveness of anti-digoxin antibodies in chronic digoxin poisonings from the DORA study (ATOM-1)”.
Clin Toxicol 2016; online early: doi: 10.1080/15563650.2016.1214278:

Moffett BS, Garner A, Zapata T, Orcutt J, Niu M, Lopez KN.
Serum digoxin concentrations and clinical signs and symptoms of digoxin toxicity in the paediatric population.
Cardiol Young 2016; 26: 493-8.

**Disulfiram**
Kumar KK, Bondade S, Sattar FA, Singh N.
Malignant catatonia and neuroleptic malignant syndrome in relation to disulfiram overdose.

**Eye drops**
Evaluation of the in vitro ocular toxicity of the fortified antibiotic eye drops prepared at the Hospital Pharmacy Departments.
Farm Hospital 2016; 40: 352-70.
Mäenpää J, Pelkonen O.
Cardiac safety of ophthalmic timolol.

**Dorzolamide**
Capino AC, Dannaway DC, Miller JL.
Metabolic acidosis with ophthalmic dorzolamide in a neonate.

**Flumazenil**
Trotti LM, Saini P, Koola C, LaBarbera V, Bliwise DL, Rye DB.
Flumazenil for the treatment of refractory hypersomnolence: clinical experience with 153 patients.
J Clin Sleep Med 2016; online early: PMID:27568889:

**Gamma hydroxybutyrate**
Pichini S, Marchei E, Pacifici R, Marinelli E, Busardó FP.
Chemsex intoxication involving sildenafil as an adulterant of GHB.
Drug Test Anal 2016; online early: doi: 10.1002/dta.2054:

**Glutathione**
Davids LM, Van Wyk JC, Khumalo NP.
Intravenous glutathione for skin lightening: inadequate safety data.
**Hallucinogenic drugs**

Goodwin AK.

An intravenous self-administration procedure for assessing the reinforcing effects of hallucinogens in nonhuman primates.


**Herbal medicines, ethnic remedies and dietary supplements**

Deldicque L, Francaux M.

Potential harmful effects of dietary supplements in sports medicine.

*Curr Opin Clin Nutr Metab Care* 2016; online early: doi: 10.1097/MCO.0000000000000321:

Hosamo A, Zarshenas MM, Mehdizadeh A, Zomorodian K, Khani AH.

The effect of traditional treatments on heavy metal toxicity of Armenian Bole.


Yang X, Chen D, Chai L, Duan H, Guo H, Li S, Xiao M, Chen H.

A case report of poisoning caused by incorrect use of Salvia.


Ying X, Xu J, Markowitz M, Yan C-H.

Pediatric lead poisoning from folk prescription for treating epilepsy.


Reproductive toxicity of Zishen Yutai pill in rats: perinatal and postnatal development study.


**Heroin (diacetylmorphine)**

Comiskey CM, Hyland J, Hyland P.

Parenthood, child care, and heroin use: outcomes after three years.


Darke S.

Addiction classics: heroin overdose.

*Addiction* 2016; online early: doi: 10.1111/add.13516:

Maas A, Krämer M, Sydow K, Chen P-S, Dame T, Musshoff F, Diehl BWK, Madea B, Hess C.

Urinary excretion study following consumption of various poppy seed products and investigation of the new potential street heroin marker ATM4G.

*Drug Test Anal* 2016; online early: doi: 10.1002/dta.2058:

**Hypnotics**

Mata DC.

Stability of 26 sedative hypnotics in six toxicological matrices at different storage conditions.

*J Anal Toxicol* 2016; online early: doi: 10.1093/jat/bkw084:

**Hypoglycaemic drugs**

Vildagliptin

Keseroglu HO, Tas-Aygar G, Gönül M, Gököz O, Ersoy-Evans S.

A case of Bullous Pemphigoid induced by vildagliptin.

**Lopinopyramine**


Acute methiopropamine intoxication after “Synthacaine” consumption.


**Methylphenidate**

Dunlop AJ, Newman LK.

ADHD and psychostimulants — Overdiagnosis and over-prescription.

Methylthioninium chloride (Methylene blue)

Muscle relaxants

Nicotine


Novel psychoactive substances


3-fluorophenmetrazine

Phenethylamines

Synthetic cannabinoids


Synthetic cannabinoids


Synthetic opioids


NSAIDs


Opioids


Barlas S. Congress and federal agencies address opioid abuse epidemic, but will new initiatives be successful? P T 2016; 41: 488-91.


Cirillo C, Francis K. Does breast milk affect neonatal abstinence syndrome severity, the need for pharmacologic therapy, and length of stay for infants of mothers on opioid maintenance therapy during pregnancy? Adv Neonatal Care 2016; online early: doi: 10.1097/ANC.0000000000000330:


Brief opioid overdose knowledge (BOOK): a questionnaire to assess overdose knowledge in individuals who use illicit or prescribed opioids.
J Addict Med 2016; online early: doi: 10.1097/ADM.0000000000000235:

Feng J, Iser JP, Yang W.
Medical encounters for opioid-related intoxications in Southern Nevada: sociodemographic and clinical correlates.
BMC Health Serv Res 2016; 16: 438:

Fox ME, Rodeberg NT, Wightman RM.
Reciprocal catecholamine changes during opiate exposure and withdrawal.
Neuropsychopharmacology 2016; online early: doi: 10.1038/npp.2016.135:

Holloway KR, Bennett TH, Hills R.
Non-fatal overdose among opiate users in Wales: a national survey.
J Subst Use 2016; 21: 471-7:

Horsfall JT, Sprague JE.
The pharmacology & toxicology of the "Holy Trinity".

Awareness and attitudes toward intranasal naloxone rescue for opioid overdose prevention.
J Subst Abuse Treat 2016; 69: 44-9:

NIDA clinical trials network CTN-0051, extended-release naltrexone vs. buprenorphine for opioid treatment (X:BOT): study design and rationale.
Contemp Clin Trials 2016; online early: doi: 10.1016/j.cct.2016.08.004:

Lin LA, Hosanagar A, Park TW, Bohnert AS.
J Addict Med 2016; online early: doi: 10.1097/ADM.0000000000000241:

Neale J, Bradford J, Strang J.
Development of a proto-typology of opiate overdose onset.
Addiction 2016; online early: doi: 10.1111/add.13589:

Park TW, Lin LA, Hosanagar A, Kogowski A, Paige K, Bohnert AS.
Understanding risk factors for opioid overdose in clinical populations to inform treatment and policy.
J Addict Med 2016; online early: doi: 10.1097/ADM.0000000000000245:

Pfister GJ, Burkes RM, Guinn B, Steele J, Kelley RR, Wiemken TL, Saad M, Ramirez J, Cavallazzi R.
Opioid overdose leading to intensive care unit admission: epidemiology and outcomes.
J Crit Care 2016; 35: 29-32:

Ruan X, Bordelon G, Kaye AD.
Comment: Buprenorphine versus methadone for opioid dependence in pregnancy.

Rudski J.
Public perspectives on expanding naloxone access to reverse opioid overdoses.
Subst Use Misuse 2016; 51: 1771-80:

Thomas KC, Wilkins DG, Curry SC, Grey TC, Andreanyak DM, McGill LD, Rollins DE.
Detection of acetaminophen-protein adducts in decedents with suspected opioid-acetaminophen combination product overdose.

Yarborough BJH, Stumbo SP, Janoff SL, Yarborough MT, McCarty D, Chilcoat HD, Coplan PM, Green CA.
Understanding opioid overdose characteristics involving prescription and illicit opioids: a mixed methods analysis.
Drug Alcohol Depend 2016; online early: doi: 10.1016/j.drugalcdep.2016.07.024:

**Buprenorphine**
Keltanen T, Mariottini C, Walta A-M, Rahikainen A-L, Ojanperä I.
Enzymatic assays for detecting lactose and sucrose in urine to reveal intravenous drug abuse with emphasis on buprenorphine.
Drug Test Anal 2016; online early: doi: 10.1002/dta.2050:

**Fentanyl**
Arens AM, van Wijk XM, Vo KT, Lynch KL, Wu AH, Smollin CG.
Adverse effects from counterfeit alprazolam tablets.

Fentanyl and a novel synthetic opioid U-47700 masquerading as street "Norco" in Central California: a case report.
Ann Emerg Med 2016; online early: doi: 10.1016/j.annemergmed.2016.06.014:

Gladden RM, Martinez P, Seth P.
MMWR Morb Mortal Wkly Rep 2016; 65: 837-43:

MMWR Morb Mortal Wkly Rep 2016; 65: 844-9:

**Hydrocodone**
Nascimento R, Poklis A, Wolf CE.
Evaluation of a newly formulated enzyme immunoassay for the detection of hydrocodone and hydromorphone in pain management compliance testing.
J Anal Toxicol 2016; online early: doi: 10.1093/jat/bkw080:

**Methadone**
Fastré S, Rocrelle O, Duray M-C, Gille M.
Delayed leukoencephalopathy following acute methadone intoxication.
Eur J Neurol 2016; 23: 330-1:

Ruan X, Mancuso KF, Kaye AD.
Determination of the unbound fraction of R- and S-methadone in human brain.

Morphine

Tapentadol

Tramadol

Paracetamol (acetaminophen)


Psychotropic drugs

Salicylate

Salvia plebeia

Sedatives

Sildenafil
Pichini S, Marchei E, Pacifici R, Marinelli E, Busardò FP. Chemsex intoxication involving sildenafil as an adulterant of GHB. Drug Test Anal 2016; online early: doi: 10.1002/dta.2054:

SSRIs and SNRIs
Kobayashi T, Matsuyama T, Takeuchi M, Ito S.


**Desvenlafaxine**

**Steroids**

**Substance abuse**

Barlas S. Congress and federal agencies address opioid abuse epidemic, but will new initiatives be successful? P T 2016; 41: 488-91.


Rusiecka I, Gagalo I, Anand JS, Schetz D, Waldman W. Drinking “Vodka” or vodka - This is a question. Toxicol In Vitro 2016; 36: 66-70.


**Sulfasalazine**

**Tricyclic antidepressants**

**Tryptamines**
**Pollution and hazardous waste**

Giudice LC.

Introduction: environmental toxicants: hidden players on the reproductive stage.

Fertil Steril 2016; online early: doi: 10.1016/j.fertnstert.2016.08.019:

Greaves AK, Letcher RJ.

A review of organophosphate esters in the environment from biological effects to distribution and fate.

Bull Environ Contam Toxicol 2016; online early: doi: 10.1007/s00128-016-1898-0:


Early-life exposures to persistent organic pollutants in relation to overweight in preschool children.

Reprod Toxicol 2016; online early: doi: 10.1016/j.reprotox.2016.08.002:


Toxic metal pollution in Pakistan and its possible risks to public health.

Rev Environ Contam Toxicol 2016; online early: doi: 10.1007/398_2016_9:

**Water pollution**


Estimating inorganic arsenic exposure from U.S. rice and total water intakes.

Environ Health Perspect 2016; online early: doi: 10.1289/EHP418:


Distribution and potential health risk of groundwater uranium in Korea.


**CHEMICALS**

2-methyl-2-butanol

Rusiecka I, Gagalo I, Anand JS, Schetz D, Waldman W.

Drinking "Vodka" or vodka - This is a question.

Toxicol In Vitro 2016; 36: 66-70.

**Alcohol (ethanol)**

Acevedo MB, Macchine AF, Anunziata F, Haymal OB, Molina JC.

Neonatal experiences with ethanol intoxication modify respiratory and thermoregulatory plasticity and affect subsequent ethanol intake in rats.

Dev Psychobiol 2016; online early: doi: 10.1002/dev.21466:

Droste N, Miller P, Pennay A, Zinkiewicz L, Lubman DI.

Environmental contexts of combined alcohol and energy drink use: associations with intoxication in licensed venues.


Gökçe H, Akcan R, Celikel A, Zeren C, Ortanca I, Demirkiran S.

Hepatotoxicity of illegal home-made alcohols.


Hafez EM, Hamad MA, Fouad M, Abdel-Lateff A.

**VETERINARY PRODUCTS**

Forrester MB.

Hum Exp Toxicol 2016; online early: doi: 10.1177/0960327116661398:

**Pentobarbital**

Forrester MB.

Hum Exp Toxicol 2016; online early: doi: 10.1177/0960327116661398:

**Xylazine**

Forrester MB.

Xylazine exposures reported to Texas Poison Centers.


**Vitamins**

Elshama SS, Osman H-EH, El-Kenawy AE-M, Youseef HM.

Comparison between the protective effects of vitamin K and vitamin A on the modulation of hypervitaminosis D3 short-term toxicity in adult albino rats.


Nicolo J-P, Malhotra A, Carne AR, Ayyappan DS.

Pyridoxine (Vitamin B6) toxicity related neuropathy: a case series.


Samour J, Perlman J, Kinne J, Baskar V, Wernery U, Dorrestein G.

Vitamin B6 (pyridoxine hydrochloride) toxicosis in falcons.


Stafford N.

Vitamin D supplements poison dozens of Danish children.


Talarico V, Barreca M, Galiano R, Galati MC, Raiola G.

Vitamin D and risk for vitamin A intoxication in an 18-month-old boy.


Ziaie H, Razmjou S, Jomhouri R, Jenabi A.

Vitamin D toxicity; stored and released from adipose tissue?


**CHEMICAL INCIDENTS AND POLLUTION**

**Air pollution**

Exhaust fumes


Maternal exposure to diluted diesel engine exhaust alters placental function and induces intergenerational effects in rabbits.


**Water pollution**


Estimating inorganic arsenic exposure from U.S. rice and total water intakes.

Environ Health Perspect 2016; online early: doi: 10.1289/EHP418:


Distribution and potential health risk of groundwater uranium in Korea.


**CHEMICALS**

2-methyl-2-butanol

Rusiecka I, Gagalo I, Anand JS, Schetz D, Waldman W.

Drinking "Vodka" or vodka - This is a question.

Toxicol In Vitro 2016; 36: 66-70.

**Alcohol (ethanol)**

Acevedo MB, Macchine AF, Anunziata F, Haymal OB, Molina JC.

Neonatal experiences with ethanol intoxication modify respiratory and thermoregulatory plasticity and affect subsequent ethanol intake in rats.

Dev Psychobiol 2016; online early: doi: 10.1002/dev.21466:

Droste N, Miller P, Pennay A, Zinkiewicz L, Lubman DI.

Environmental contexts of combined alcohol and energy drink use: associations with intoxication in licensed venues.


Gökçe H, Akcan R, Celikel A, Zeren C, Ortanca I, Demirkiran S.

Hepatotoxicity of illegal home-made alcohols.


Hafez EM, Hamad MA, Fouad M, Abdel-Lateff A.

Komáreková I. Alcohol-related deaths - a retrospective study from the region of northern Slovakia. Soud Lek 2016; 61: 30-4.


Benzene

Bisphenol A

Bleach

Bromopropane

Carbon black

Carbon monoxide


Chloride
Contrast media

Corrosives


Cosmetics

Chow E, Mahalingaiah S. Cosmetics use and age at menopause: is there a connection? Fertil Steril 2016; online early: doi: 10.1016/j.fertnstert.2016.08.020:


Omenka SS, Adeyi AA. Heavy metal content of selected personal care products (PCPs) available in Ibadan, Nigeria and their toxic effects. Toxicol Rep 2016; 3: 628-35.

Cyanide


Detergents

Dyes

E-cigarettes and e-liquids


Food additives

Fragrance compounds

Oxygen must be treated like a drug to avoid under or overdose.

Nurs Times 2016; 112: 11.

**Parabens**


A survey of parabens in commercial pharmaceuticals from China and its implications for human exposure.

Environ Int 2016; online early; doi: 10.1016/j.envint.2016.07.013:

**Perfluorinated compounds**


Determinants of serum levels of perfluorinated alkyl acids in Danish pregnant women.

Int J Hyg Environ Health 2016; online early; doi: 10.1016/j.ijheh.2016.07.008:

**Perfluoro-octane**

Alharbi SS, Asiri MS.

Reversible corneal toxicity of retained intracameral perfluoro-octane.


**Phthalate esters**

Alves A, Covaci A, Voorspoels S.

Are nails a valuable non-invasive alternative for estimating human exposure to phthalate esters?


**Polycyclic aromatic hydrocarbons**

Bulejko P, Adamec V, Schullerova B, Skeril R.

Levels, sources, and health risk assessment of polycyclic aromatic hydrocarbons in Brno, Czech Republic: a 5-year study.

Environ Sci Pollut Res 2016; online early; doi: 10.1007/s11356-016-7172-5:

**Radiation**

Calik M, Yavas G, Calik SG, Yavas C, Celik ZE, Sargon MF, Esme H.

Amelioration of radiation-induced lung injury by halofuginone: an experimental study in Wistar-Albino rats.

Hum Exp Toxicol 2016; online early; doi: 10.1177/0960327116660753:

Nathwani AC, Down JF, Goldstone J, Yassin J, Dargan PI, Vircish A, Gent N, Lloyd D, Harrison JD.

Polonium-210 poisoning: a first-hand account.

Lancet 2016; online early; doi: 10.1016/S0140-6736(16)00144-6:

Smoke

Sodium chloride

Sodium metasilicate

Sodium nitrite

Tobacco

Meier E, Hatsukami DK. A review of the additive health risk of cannabis and tobacco co-use. Drug Alcohol Depend 2016; 166: 6-12.


Toxic alcohols


Ethylene glycol

Methanol


Water

Welding fumes

Zinc oxide
METALS

General


Omenka SS, Adeyi AA. Heavy metal content of selected personal care products (PCPs) available in Ibadan, Nigeria and their toxic effects. Toxicol Rep 2016; 3: 628-35.


Zhang SJ, Luo RX, Ma D, Zhuo XY. Biomonitoring of 33 elements in blood and urine samples from coastal populations in Sanmen County of Zhejiang Province. Fa Yi Xue Za Zhi 2016; 32: 114-8.

Aluminium

Arsenic


Cadmium

Chromium
Junaid M, Hashmi MZ, Malik RN, Pei D-S.
Toxicity and oxidative stress induced by chromium in workers exposed from different occupational settings around the globe: a review. Environ Sci Pollut Res 2016; online early: doi: 10.1007/s11356-016-7463-x:


**Cobalt**


**Lanthanum**


**Lead**


Kremplaska K, Vasko L, Vaskova J. Humic acids as therapeutic compounds in lead intoxication. Curr Clin Pharmacol 2016; online early: PMID:27526696:

Muennig P. The social costs of lead poisonings. Health Aff 2016; 35: 1545.


**Lithium**


**Manganese**

Mercury


Plutonium

Polonium

Selenium

Silver

Uranium

Zinc

PESTICIDES
General


Selenium

Silver

Uranium

Zinc
Herbicides

Glufosinate

Glyphosate


Propanil


Insecticides (general)


Buprofezin

DEET

Organochlorine pesticides

DDT

Organophosphorus insecticides

General


Chlorpyrifos

Paraquat and diquat


Pyrethroid insecticides

General

Zhorov BS, Dong K. Elucidation of pyrethroid and DDT receptor sites in the voltage-gated sodium channel. Neurotoxicology 2016; online early:
Zinc phosphide
Oghabian Z, Afshar A, Rahimi HR.
Hepatotoxicity due to zinc phosphide poisoning in two patients: role of N-acetylcysteine.

CHEMICAL WARFARE, BIOLOGICAL WARFARE AND RIOT CONTROL AGENTS
Chemical warfare
General
Padley AP.
Gas: the greatest terror of the Great War.

Mustard gas
Jin X, Ray R, Ray P.
Sulfur mustard-stimulated proteases and their inhibitors in a cultured normal human epidermal keratinocytes model: A potential approach for anti-vesicant drug development.

Khateri S, Soroush M, Mokhber N, Sedighimoghaddam M, Modirian E, Moussavi B, Moussavi SJ, Hosseini M.
Mental health status following severe sulfur mustard exposure: a long-term study of Iranian war survivors.

Mukaida K, Hattori N, Iwamoto H, Onari Y, Nishimura Y, Kondoh K, Akita T, Tanaka J, Kohno N.
Mustard gas exposure and mortality among retired workers at a poisonous gas factory in Japan: A 57-year follow-up cohort study.

Nerve agents
Karade HN, Raviraju G, Acharya BN, Vallveti AK, Bhalerao U, Acharya J.
Synthesis and in vitro reactivation study of isonicotinamide derivatives of 2-(hydroxyimino)-N-(pyridin-3-yl)acetamide as reactivators of Sarin and VX inhibited human acetylcholinesterase (AChE).

Lockridge O, Norgren RB, Johnson RC, Blake TA.
Naturally occurring genetic variants of human acetylcholinesterase and butryrylcholinesterase and their potential impact on risk of toxicity from cholinesterase inhibitors.

VX
Kranawetvogl A, Worek F, Thiermann H, John H.
Modification of human serum albumin by the nerve agent VX: mL-C-ESI HR MS/MS method for detection of phosphorylated tyrosine and novel cysteine containing disulfide adducts.

PLANTS
Kratom (Mitragyna speciosa)
Anwar M, Law R, Schier J.
Notes from the field: Kratom (Mitragyna speciosa) exposures reported to Poison Centers — United States, 2010–2015.


Moulds
Pizzorno J, Shippy A.
Is mold toxicity really a problem for our patients? Part 2: nonrespiratory conditions.

Mushrooms and other fungi
Bal A, Anil M, Yilmaz I, Akata I, Atilla OD.
An outbreak of non-fatal mushroom poisoning with Omphalotus olearius among Syrian refugees in Izmir, Turkey.

Sub-acute toxicity study of Tiger Milk Mushroom Lignosus tigris Chon S. Tan Cultivar E Sclerotium in Sprague Dawley rats.
Front Pharmacol 2016; 7: 246.

Amanita mushrooms
Cai Q, Cui Y-Y, Yang ZL.
Lethal Amanita species in China.

Early initiation of MARS® dialysis in Amanita phalloides-induced acute liver injury prevents liver transplantation.

Mycoxotins
Auapan S, Poapolathep S, Giorgi M, Imsilp K, Poapolathep A.
An overview of the toxicology and toxicokinetics of fusarenon-X, a type B trichotheccene mycotoxin.

Salvia plebeia
Yang X, Chen D, Chai L, Duan H, Guo H, Li S, Xiao M, Chen H.
A case report of poisoning caused by incorrect use of Salvia.

ANIMALS
Fish/marine poisoning
Development of certified reference materials for diarrhetic shellfish poisoning toxins, part 1: calibration solutions.
J AOAC Int 2016; online early: doi: 10.5740/jaoacint.16-0151:

Li M, Chen X, Guo Y, Zhang B, Tang F, Wu X.
Enhanced sensitivity and resolution for the analysis of paralytic shellfish poisoning toxins in water using capillary electrophoresis with amperometric detection and field-amplified sample injection.

Quilliam MA, Reves KL, Giddings SD, McCormack P, Beach DG.
Development of certified reference materials for diarrhetic shellfish poisoning toxins, part 2: shellfish matrix materials.
J AOAC Int 2016; online early: doi: 10.5740/jaoacint.16-0152:
An aquarium hobbyist poisoning: Identification of new palytoxins in *Palythoa cf. toxica* and complete detoxification of the aquarium water by activated carbon.
Toxicon 2016; online early: doi: 10.1016/j.toxicon.2016.08.012:

Thomas L, Tharakaram S.
Lionfish envenomation: relapses controlled by intralesional triamcinolone.

Williams BL, Powers LV, Garner MM.
A pufferfish (*Tetradon nigroviridis*) available in the common pet trade harbors lethal concentrations of tetrodotoxin: a case study of poisoning in a Cuvier’s dwarf caiman (*Paleosuchus palpebrosus*).

**Jellyfish**
Montgomery L, Seys J, Mees J.
To pee, or not to pee: a review on envenomation and treatment in European jellyfish species.
Mar Drugs 2016; 14: 127.

**Scombroid**
Ridolo E, Martignago I, Senna G, Ricci G.
Scombroid syndrome: it seems to be fish allergy but... it isn't.
Curr Opin Allergy Clin Immunol 2016; online early: doi: 10.1097/ACI.0000000000000297:

**Tetrodotoxin**
Williams BL, Powers LV, Garner MM.
A pufferfish (*Tetradon nigroviridis*) available in the common pet trade harbors lethal concentrations of tetrodotoxin: a case study of poisoning in a Cuvier’s dwarf caiman (*Paleosuchus palpebrosus*).

**Insects**
Carlson J, Golden DBK.
Large local reactions to insect envenomation.

**Hymenoptera**
Kanchan T, Atreya A, Shekhawat RS.
Fatal anaphylaxis from hymenoptera stings.

**Microorganisms**

**Botulism**
Ali FR, Al-Niaimi F.
Justinus Kerner and sausage poisoning: the birth of botulinum toxin.

Archana MS.
Toxin yet not toxic: botulinum toxin in dentistry.

Bilge AD, Sadigov F, Salar-Gomcelli S.
Sixth nerve palsy following botulinum toxin injection for facial rejuvenation.
Cutan Ocul Toxicol 2016; online early: doi: 10.1080/15569527.2016.1227989:

**Scorpions**
Coelho JS, Ishikawa EAY, Dos Santos PRSG, de Oliviera Pardal PP.
Scorpionism by *Tityus silvestris* in eastern Brazilian Amazon.

Coorg V, Levitan RD, Gerkin RD, Muenzer J, Ruha A-M.
Clinical presentation and outcomes associated with different treatment modalities for pediatric bark scorpion envenomation.

Dos Santos DS, Carvalho EL, de Lima JC, Breda RV, Oliveira RS, de Freitas TC, Salamoni SD, Domingues MF, Piovesan AR, Boldo JT, de Assis DR, da Costa JC, Dal Belo CA, Pinto PM.
*Bothriurus bonariensis* scorpion venom activates voltage-dependent sodium channels in insect and mammalian nervous systems.

**Snake bites**
Mekonnen D, Mitiku T, Tamir Y, Azzah A.
Snake bite: case series of patients presented to Gondar University Hospital, North West Ethiopia.

Singh RR, Uraiya D, Kumar A, Tripathi N.
Early demographic and clinical predictors of developing acute kidney injury in snake bite patients: a retrospective controlled study from an Indian tertiary care hospital in North Eastern Uttar Pradesh India.

**Crotalinae (Pit vipers)**
Cañas CA.
Brainstem ischemic stroke after to *Bothrops atrox* snakebite.

de Roodt AR, Boyer LV, Lanari LC, Irazu L, Laskowicz RD, Sabattini PL, Damin CF.
Venom yield and its relationship with body size and fang separation of pit vipers from Argentina.

Lasoff DR, Ruha A-M, Curry SC, Koh C, Clark RF.
A new F(ab')2 antivenom for the treatment of crotaline envenomation in children.

**Viperinae (True vipers)**
Kurtovic T, Brvar M, Grenc D, Lang BM, Krizaj I, Halassy B.
A single dose of Viperfav™ may be inadequate for snake bite: a case report and pharmacokinetic evaluation.
Toxins (Basel) 2016; 8: 224.

Tranca S, Cosic M, Antal O.
Lethal case of *Vipera berus* bite.
Clujul Medical 2016; 89: 435-7.

**Spiders**
Potential implications for designing drugs against the brown spider venom phospholipase-D.
J Cell Biochem 2016; online early: doi: 10.1002/jcb.25678:
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