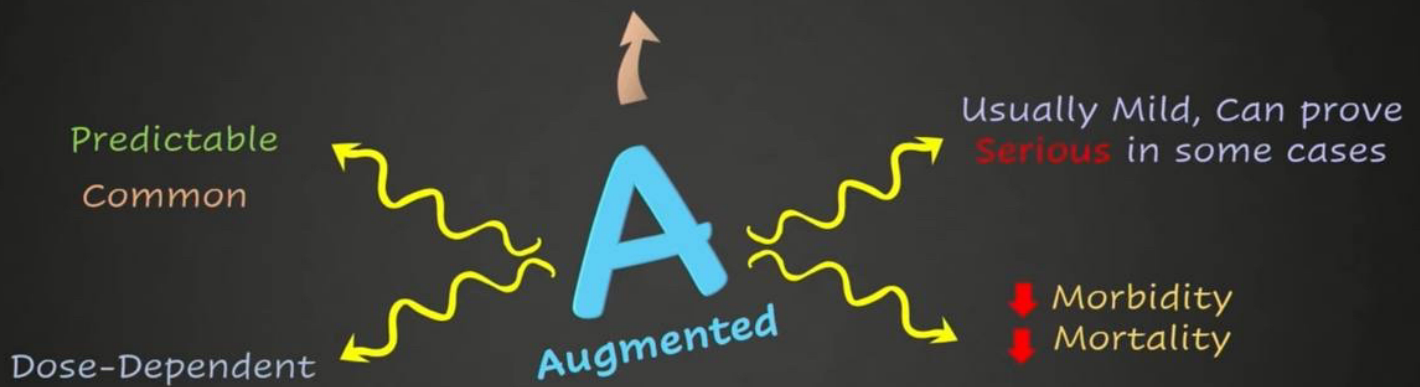


Exaggeration of Primary Pharmacological Effect of a Drug



- | | | | |
|-------------|---|-----------------|---------------------------------------------------------------------------------------|
| Bleeding | → | Warfarin |  |
| Bradycardia | → | Beta-blockers |  |
| Deafness | → | Aminoglycosides |  |

Novel Responses that are **NOT** Expected from the Known Pharmacological Actions of the Drug.

(Idiosyncratic)
Bizarre

Often **Serious**

Unpredictable
Uncommon

B

↑ Morbidity
↑ Mortality

NOT Dose-Dependent

Immunological and
Pharmacogenetic Mechanisms

Anaphylaxis → Penicillin 

Aplastic Anemia → Chloramphenicol 

Malignant Hyperthermia → Anesthetics 

Chronic Use of a Drug or due to Dose Accumulation

Uncommon




Persist for longer Time

C

Chronic (Continuing)

Dose-Dependent

Time-Dependent

- Osteonecrosis of Jaw → Bisphosphonates 
- Cushing Syndrome → Cortisone 
- Hepatotoxicity → Acetaminophen 

Appear Sometime after the Use and occur due to prolonged use of a drug which does **NOT** tend to accumulate.

Uncommon

Difficult to Detect

Delayed

D

Dose-Dependent

Considerable Lag Time

Leucopenia



Lomustine



Bladder Carcinoma



Cyclophosphamide



Linked to Withdrawal of a Medicine



Seizures



Phenytoin



Rebound Hypertension



Clonidine



Withdrawal Syndrome



Opiate



Withdrawal Syndrome



Benzodiazepines



Unexpected Failure of Therapy, where the Drug Undesirably **Increases** and **Decreases** in Efficacy

Common

Failure of Efficacy

F

Caused by Drug Interactions

Dose-Dependent

↓ Clearance of Drug



Dialysis



↓ Effect of Antibiotic



Resistance



× Oral Contraceptives



Enzyme Inducers

