

'Finding the next Viagra: multiple approaches to identifying new uses for old drugs'

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Who am I?

- Doc: 34 years
- GP: 30 years
- Academic: 20 years
- Granddad: 2 years

Audience participation time

Drug side-effects

- Nausea
- Indigestion/heartburn
- Diarrhoea
- Rashes
- Wheeze

● abdominal-pain
▼

diarrhoea

nausea

thrush

rashes

What's this?



- 1991 Viagra developed
- 1500 compounds screened
- £600,000,000 spent
- Trials as treatment for angina – Merthyr Tydfil
- Unexpected side effect!
- BDR: beneficial drug reaction

Adverse drug reactions

- What do Drs do?
- Yellow Card
- Green Card
- Inform drug company
- NOTHING

Beneficial drug reactions

- 1st ? Lande in 1927: gold
- Best known: viagra
- Many others known
- HOW MANY UNKNOWN

Why don't we know about BDRs

- Missing the gorilla
- Wood for trees
- The dog that didn't bark
- Nobody's listening
- Nobody's counting

What shall we do about BDRs?

- Database mining especially for
 - non-barking dogs
 - unpredictable effects
- Raise awareness
- Green card equivalent
- Yellow card equivalent (Blue card)
INCLUDING FOR PATIENTS
- Spot the gorilla/see the wood/hear the dog/listen and count

How will BDRs help?

- Old drugs not new
- Familiar
- Cheap
- Shorter (and cheaper) development

It's time to be
systematic about
BDRs