

Harrison's story: Linking Data to Outcomes

Queensland
Injury
Surveillance Unit



Queensland Injury Surveillance Unit

- Co-located at Mater Children's Hospital, Brisbane
- Collecting data since 1998
- 16 hospitals (urban, regional, rural and remote)



QISU

- Level 2 NDS-IS
 - Age, sex
 - Mechanism
 - Nature
 - location
 - occupation
- Real time collection at emergency department triage



Harrison



Harrison's Story

- 18 month old
- Accessed powdered dishwasher detergent from under kitchen sink
- Removed cap by himself
- Mother heard gagging and found him vomiting blood
- All happened within 2 minutes



Emergency

- Saturday
- Distressed and frightened toddler
- Vomiting blood
- Stridor
- Urgent anaesthetic assistance
- Gastroenterologist called in urgently





Intensive Care

- Severe oral, laryngeal and oesophageal burns
- Required emergency endoscopy to remove powder
- Ventilated in intensive care

Effects 3 years on

- Oesophageal scarring
- Incoordinate swallow
- Recurrent procedures:
 - Oesophageal dilatation
 - Laser therapy
 - Mitomycin C
- Speech delay (previous bilat cleft lip and palate)



Effects 3 years on

- Attends prep
- Plays soccer
- Able to “participate” in meals
- 4-5 mouthfuls only
- Chews and spits rest out
- Drinks from bottle with neonatal teat



Is this common?

- In a 7 year period:
 - 1884 children <5 poisoning with non-medicinal substances
 - 452 (24%) household cleaners
 - 76 (4%) dishwasher detergents (3 required resuscitation)



Issues Identified

- CRC had not been activated.
- The cap clicked twice, but CRC only active after 2nd click
- Powder highly caustic, pH 13.5
- Anti-caking agents increased flow of powder



Contact with Manufacturer

- Phone contact with safety officer of Cussons
- Case history and data powerful enough to show need for change
- Sticker on cap as interim measure
- New design of bottle/cap



Manufacturer's response

- New cap that activated CRC after single click
- Flow limiting device in bottle outlet



Formation of working party

- Kidsafe
- Dept of Fair Trading: Product Safety
- Queensland Health: Environment and Poisons
- Poisons Information Centre



Whose responsibility?

- TGA regulates scheduling
 - Stipulate CRP for certain products
 - Limit availability of toxic substances
- Standards Australia:
 - Performance based standard for reclosable child-resistant packaging



Problems identified

- TGA: Anomaly in scheduling
 - Liquids and gels with pH > 11.5 required CRC
 - Powders were exempt
 - No safe upper limit for pH
- Standards Australia
 - Standard did not describe mechanism required to engage the CR function of cap



TGA Submission

- Recommending
 - upper limit for pH 12.5
 - CRP for products with pH > 11.5
- QISU submission plus:
 - Gastroenterologist
 - Paediatric Emergency network: Case series from Auckland



Standards

- Submission requesting standards address the following
 - Engagement of CRC
 - No ambiguity or dual level of functionality for CRC



Outcomes

- TGA
 - All detergents with pH 11.5 to 12.5 to come under schedule 5 and require CRC
 - No detergent with pH > 12.5 to be available for domestic use



Outcomes

- Standards Australia
 - Invited to join HE-016
 - Raised issue at SA forum Feb 2007
 - Standards position is that cap function is a QA issue
 - Failure of SA tested cap due to wear in production tooling



Challenges

- Enforce consistency in labelling
 - Many products don't list pH
 - Where pH is listed for powder it is often as a 1% solution
- Removing old stock from shelves
- Industrial strength products still available
- Encourage safer products: enzyme based detergents



Challenges

- Safe Communities Forum: 2008: CR packaging:
- Engage industry
 - ASMI
 - ACCORD
- Engage
 - Kidsafe
 - State health
 - QPIC
 - CR tester



Evolution

- Working groups
 - CR closure: design, QA processes
 - Blister packs: CR standard development
 - Marketing: responsible marketing standards



Linking Data to Outcomes

- Clinical concern
- Connections
- Evidence
 - Local/ national
 - International
- Partnerships
- Evolve the argument

