Body Packers, Pushers and Stuffers

Toxicology

1 Introduction
People use various methods of concealment of illicit drugs for the purposes of trafficking or to evade detection. These are defined as¹:

- **Body packers** who swallow drugs in rubber or latex packaging, typically for the purpose of trafficking. They often use constipating agents to slow GI transit.
- **Body pushers** who insert drug packets into the rectum or vagina also for the purpose of trafficking
- **Body stuffers** impulsively swallow, or insert vaginally or rectally, unwrapped or poorly wrapped drugs fearing apprehension in an effort to evade detection. Usually the amount of drugs involved is much smaller than that used by packers or pushers.

The presentation of these patients to the emergency department may be voluntary or under police detention. Typically the concealed drugs are amphetamines or opiates, with life threatening consequences possible with packet rupture.

2 Risk Assessment
Risk assessment in this group can be difficult as history from the patient may be unreliable given the fear of prosecution. If the patient is amenable, the drug, volume, specific details regarding the packaging, the time ingested and any co-ingested constipating agents is all important information to obtain. An in vitro study looking at the integrity of packaging found drug liberation was most likely in paper packaging and least likely in condom packets².

Clinical examination should look specifically for evidence of a sympathomimetic or opioid toxidrome as well as any signs of surgical complications such as bowel obstruction. Rectal and vaginal examination should be performed in the consenting patient where indicated. Case series
demonstrate that toxicity usually manifests early, within 4 hours, in body stuffers as packaging is typically hastily prepared\textsuperscript{3,4}.

The sensitivity of abdominal x-ray in the detection of drug packets has been reported as 47-95\%, this may be enhanced by the use of oral contrast.\textsuperscript{1} CT imaging is likely to be superior to x-ray.\textsuperscript{1} A recent review found the sensitivity of CT without oral contrast to be 70\% in body packers and 37\% in body stuffers. Interestingly in this series the sensitivity was slightly lower when oral contrast was used. Be mindful that CT often yields a false negative result and shouldn’t be relied upon in isolation if negative. The utility of CT is more when it does identify concealed drugs, it can accurately define the location of packages to enable prognostication and guide therapy. Urine drug screening has a low sensitivity and should not be routinely used.

### Box 1 Risk factors for complications associated with concealed drugs

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Description</th>
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<tbody>
<tr>
<td>Abdominal pain</td>
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<td>Vomiting</td>
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<td>Poisoning</td>
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<td>Improvised/home-made packaging (McCarron and Wood\textsuperscript{1} type 1 packets)</td>
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<tr>
<td>Large total quantity of drug (especially for body stuffers)</td>
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<tr>
<td>High number of packets (&gt;50)</td>
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<td>Large size of packets</td>
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<td>Delayed passage of drug packets (&gt;48 h)</td>
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<td>Passage of fragments of packaging in stool</td>
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<tr>
<td>Poisoning in a co-transporter</td>
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<td>Previous abdominal surgery (greater risk of obstructing secondary to adhesions)</td>
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<tr>
<td>Concomitant drug usage, especially constipating agents</td>
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<td>Abnormal vital signs</td>
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<td>Positive urine drug test following previous negative test (may herald packet breakdown or rupture)</td>
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### 3 Management

The majority of patients with concealed drugs can be managed supportively with a complication rate of less than 5\%.\textsuperscript{1}

Specific toxidromes of sympathomimetic or opioid excess should be managed along standard lines.

**Decontamination**

- There may be a role for **whole bowel irrigation** where the risk profile of the drugs ingested is high – particularly in the case of high dose amphetamine concealment – however there is no evidence that supports its use.
• Similarly the role of **activated charcoal** is not well defined, but may be considered in those patients who have a high risk of packet rupture.

• **Surgical removal** of the packages laparotomy and careful enterotomy, may be necessary, particularly if there are signs of toxicity. Packets in the vagina or rectum should be able to be carefully removed in the emergency department. Given the relatively late presentation of body packers, it is unusual that packages would be still in the stomach and amenable to endoscopy.

**Antidote**
Naloxone is indicated in cases of opioid toxicity.

### 4 Disposition
The duration of observation is dependent on the risk profile of the individual case. Typically body stuffers have ingested or sequestered smaller quantities of poorly wrapped drugs and an uneventful observation period of 12 hours, or overnight (avoid discharging afterhours), is usually sufficient. Body Packers may have enormous quantities of drug sequestered, and these patients should be observed until three package free stools are passed and repeat CT imaging is negative. All these patients should be discussed with the Toxicology Unit.

### 5 Additional Information
The legal and ethical considerations of managing these patients remain poorly defined. Difficulties arise particularly regarding the issue of consent as well as in maintaining confidentiality.4

**Consent**

• Asymptomatic patients have the capacity to consent and have the right to refuse examinations and investigations. If the patient is brought to hospital in police custody, as specific court order can override this; however a court order cannot compel a doctor to perform a procedure they consider morally objectionable. They simply permit procedures to be performed without the fear of legal recourse.2

• In the intoxicated patient at risk of deterioration, consent can be waived as it is an emergency situation for which we have a duty of care under the Guardianship Act

**Confidentiality**

• There is no nationally consistent legislation mandating compulsory reporting. While the overarching principle of patient confidentiality is important, there are times when this can be overridden by a health professional, specifically when it is in conflict with the duty to obey the law. Again it is up to the treating physician to consider the ethical ramifications for each individual case.
6 Appendix

APPROACH TO PATIENT WITH INTERNALLY CONCEALED DRUGS WITHOUT SIGNS OF TOXICITY

Body Packers or Body Stuffers presenting with no signs of toxicity

Refer ALL patients to toxicology #6557 in hours, Toxicologist on call after hours

CT abdomen POSITIVE for packages

Consider:
- SDAC
- WBI
- Endoscopy
- Laparotomy

Observe until 3 package free stools and repeat CT imaging negative

CT abdomen NEGATIVE for packages

Admit to SSU for observation period:

Suitable for discharge if remain asymptomatic 12 hours post ingestion and within daylight hours

Refer ALL patients to toxicology #6557 in hours, Toxicologist on call after hours
7 References


5. Cunningham N. “Medicolegal issues surrounding body packers, pushers and stuffers.” *EMA* 2012; 24: 590-4


7. Shahnazi M et al. “Comparison of abdominal CT with or without oral contrast in diagnosis of body packers and body stuffers.” *Clin Toxicol* 2015; 53(7): 596-603