Safer Use of Controlled Drugs - Preventing harms from fentanyl and buprenorphine transdermal patches

Patient safety incident reports with Controlled Drug (CD) transdermal patches
Large numbers of patient safety incidents involving fentanyl and buprenorphine transdermal patches have been reported to the National Reporting and Learning System (NRLS).

There were a total of 5,139 patient safety incidents reported between the July 2009 and July 2012. Of these, 734 incidents reported actual harm.

See the table below for a breakdown of incidents causing death, severe, or moderate harm.

Medication Error Category	Level of Harm			Total
	Death	Severe	Moderate	
Overdose, wrong strength	5	8	10	**23**
Overdose, use of multiple patches		11	11	**22**
Overdose, use of multiple opiates	1	7	7	**15**
Overdose, opiate naïve patient		8	2	**10**
Overdose, dose conversion error	1		3	**4**
Under-dose			1	**1**
Omitted or delayed dose(s)			9	**9**
Omitted doses, withdrawal symptoms	1	1	10	**12**
Total	**8**	**35**	**53**	**96**

(See the supporting information (PDF) for more details of these incidents)

There were 638 “low harm incidents, not detailed in the table above.

Clinical practitioners who prescribe, dispense and administer these patches should check the following:

Checklist for safer use of fentanyl and buprenorphine CD transdermal patches

1. CD transdermal fentanyl patches should be restricted to patients that are already receiving regular doses of opioids

    i. **Do not use** for acute pain.
    ii. **Do not use** in opiate naïve patients.

2. Before using a CD transdermal patch, calculate the total daily dose of all the opioid analgesics that the patient has received previously. This is usually in morphine equivalence.

    Use locally or nationally approved dose conversion charts to do this. There are dose conversion charts in the ‘Prescribing In Palliative Care’ Section of

the British National Formulary and in CD transdermal manufacturers guidance (SPC).

3. Determine a new dose of analgesia to be delivered by transdermal CD patch in morphine equivalents. For changes in analgesia, as a 'rule of thumb', the total daily dose should not be increased in steps greater than 50% of the previous daily dose.

   Again use a conversion chart to determine the total daily dose of analgesia by CD transdermal patch(es) and where necessary divide by 24 to equate with the micrograms/hour strength of available products.

   To deliver the intended dose more than one CD patch may have to be used.

   n/b - Formally double check the calculations and where possible have the patient's dose independently verified.

4. Ensure only those CD transdermal patches intended for current use are applied.

   Patches are skin coloured and may not be easy to locate.

   Formally record the anatomical position of currently applied patches so that this information is readily available to inform future decisions and actions.

5. Prescribe by brand and ensure patients using CD transdermal patches have adequate prescriptions and supplies to minimise interruption and omission of therapy.

   Transdermal CD patches **must be removed and replaced every 48–72 hours** in accordance with the manufactures guidance (SPC).

6. Consider that patients may exhibit symptoms of opioid withdrawal when a CD transdermal patch has been omitted.

   The cause of these symptoms may not be recognised and patients may be treated with benzodiazepines for these symptoms, rather than have opioid therapy for their analgesia re-instated, if necessary at a reduced dose.