# **Drug information**

**Conclusions** Strategists worldwide believe technology has the potential to promote quality, safety and efficiency in shared care where organisational, social and technical issues are addressed. However, evidence of hospital pharmacists' views, their perceptions of eHealth and shared care, organisational development and training needs remain under-researched.

### References

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No conflict of interest.

## DGI-002 ADRENAL INSUFFICIENCY INDUCED BY A CHINESE HERBAL MEDICINE

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**Background** Chinese herbal medicines have a history, dating back to 1974, of containing strong prescription drugs [1]. In the United States (US), Food and Drug Authority (FDA) analysis of Chinese herbal preparations has found prednisolone, diazepam, paracetamol, indomethacin and hydrochlorothiazide [1].

During a routine review for type 2 diabetes, a MMUH patient reported new-onset fatigue. In view of the presenting complaint, a Synacthen test and thyroid function tests were performed. The patient's Synacthen test reported positive for adrenal insufficiency, despite an absence of other clinical symptoms. Repeat testing and external analysis confirmed the result.

Potential causes of the positive Synacthen test were investigated. On further questioning the patient admitted to taking a 'vitamintype' tablet, which was a Chinese herbal medicine, Cow's Head Brand, Tung Shueh Pills. It was a suspected that the Tung Shueh Pills may have contained corticosteroids, which suppressed the patient's endogenous corticosteroid production, producing a positive Synacthen test.

Purpose To find out whether Cow's Head Brand, Tung Shueh Pills contained corticosteroids.

Materials and Methods Literature review for reports on Cow's Head Brand, Tung Shueh Pills.

Analysis of Cow's Head Brand, Tung Shueh Pills in collaboration with the Irish Medicines Board (IMB)

Results Cow's Head Brand, Tung Shueh Pills manufactured by the Ta Ang Pharmaceutical Company are included on a FDA list of products that require detention when being imported into the US [1]. There is also a case report of Tung Shueh Pills causing acute interstitial nephritis [2].

Review of the listed ingredients of the Tung Shueh pills did not identify any agents known to suppress endogenous corticosteroid production.

The IMB analysis of the agent reported that the product contained betamethasone, arsenic, lead, cadmium and antimony

The patient is currently receiving oral hydrocortisone, which is being tapered in accordance with Synacthen test results.

Conclusions Cow's Head Brand, Tung Shueh pills were found to contain a corticosteroid and heavy metals. Regular administration resulted in suppression of endogenous corticosteroid production, producing drug-induced adrenal insufficiency in a patient.

This case report highlights the importance of including herbal medicines in patients' medicines histories. It also highlights that a lack of regulation of Chinese Herbal Medicines enables inclusion of prescription agents, not included in the product ingredients, which may have significant pharmacological effects on patients.

## References

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No conflict of interest.



## DGI-003 ANALYSIS OF CLINICAL EFFECTIVENESS OF TREATMENT WITH PEGINTERFERON PLUS RIBAVIRIN IN CHRONIC **HEPATITIS C MONO-INFECTED PATIENTS**

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**Background** Pegylated interferon (Peg-INF) in combination with ribavirin (RBV) is currently the gold standard treatment in chronic hepatitis C (HCV) patients, achieving viral eradication in approximately 50-60% of patients in published data.

**Purpose** To assess the clinical effectiveness of Peg-INF plus RBV for the treatment of chronic HCV mono-infected patients.

Materials and Methods Retrospective observational study involving 152 patients treated from October 2006 to July 2010. We collected demographic data (age, gender), laboratory reports (genotype, viral load), clinical characteristics, type of Peg-INF and RBV and Peg-INF doses. The primary end point was a sustained virological response (SVR). Secondary end points included rapid virological response (RVR), early virological response (EVR) (complete or partial), final viral response (FVR) and virological relapse. Exclusion criteria were: coinfection, haemodialysis and patients with insufficient data to analyse. Data were obtained from the pharmacy database and medical records.

Results 152 patients (mean age 46 years) were analysed and 84 were included. 65.5% were male. 67.1% with genotype 1-4. 51.2% were treated with Peg-INF lpha-2a. The average viral load was  $1.9 \times 1010$  IU/ml and 40% of the patients had more than 600,000 IU/ml HCV RNA. The METAVIR liver fibrosis stage was F3-F4 in 36.6% of patients. 62.5% (50/80) achieved SVR, 72.0% in those with genotype 2-3 and 60.8% in 1-4. RVR was achieved in 31.7% of patients with genotype 1-4, and 73.9% in genotype 2-3. 69.2% of patients with genotype 1-4 achieved a complete EVR versus 92.3% in 2-3. 11.5% of patients with genotype 1-4 and 7.7% of those with 2-3 achieved a partial EVR. Relapse rates (18.2%) were lower in genotype 2–3 than in 1–4 (75% of them).

**Conclusions** The overall SVR rates observed were in accordance with published data, as well as the higher proportion of patients with genotype 2-3 that achieved a RVR and the highest rate of relapse observed in those with genotype 1–4.

No conflict of interest.

## DGI-004 ANALYSIS OF CONSULTATIONS MADE BY PATIENTS IN AN OUTPATIENT SERVICE

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Background hospital pharmacists interview all outpatients with a new prescription, including medication changes, and those who are suspected of not having good compliance. However, patients sometimes voluntarily demand to talk to the pharmacist.