Update on New Drugs

Health Canada approved 51 new molecular entities/significant biologicals in 2013. Although this may seem like a lot, many of these drugs are for the treatment of various cancers, or approved as notice of compliance (NOC w/ conditions), and so may not necessarily be seen in community pharmacy. Also, many of these drugs are considered “me-too” drugs and do not differ significantly from previously approved drugs in the same class. This leaves a handful of drugs that are first in class drugs and available through wholesalers, meaning they are likely to show up in community pharmacy practice, if not already there.

**Fibristal™ (ulipristal)**

**Selective Progesterone Receptor Modulator (SPRM)**

- Treating moderate to severe signs and symptoms of uterine fibroids in women of reproductive age eligible for surgery. Treatment is limited to three months (study patients had planned surgeries after three months of ulipristal use).  

- MOA: Partial antagonist at progesterone receptors, which reduces fibroid size by inhibiting fibroid cellular proliferation and inducing apoptosis.

- US indication: emergency contraception

- Ulipristal is structurally similar to mifepristone, but has less antiglucocorticoid activity, providing a potential advantage for long-term use.

**Drug** | **Indication** | **Safety** | **Efficacy** | **Place in therapy** | **Cost**
--- | --- | --- | --- | --- | ---
Fibristal™ (ulipristal) | Treating moderate to severe signs and symptoms of uterine fibroids in women of reproductive age eligible for surgery. Treatment is limited to three months (study patients had planned surgeries after three months of ulipristal use). | Avoid with: oral contraceptive pills or progestin only pills; strong CYP3A4 inducers/inhibitors; women who are pregnant, breast feeding, have genital bleeding of unknown etiology or for reasons other than uterine fibroids, or have cancer of the breast, cervix, uterus, or ovaries | Compared to leuprolide: non-inferior for control of bleeding; no initial steroidal flare; quicker amenorrhea induction (7-10 days for ulipristal; 21 days for leuprolide); less effective than leuprolide in decreasing fibroid volume, but may have a more prolonged volume reduction after treatment discontinuation | Canadian Drug Expert Committee (CDEC) recommends to list with conditions: maximum duration of treatment is three months; patient is under the care of an OB/GYN; AND, the drug plan costs of ulipristal acetate do not exceed the drug plan costs for the comparator leuprolide acetate. | $422.69/34d (once daily oral tablet)

**Adverse reactions:**

- >10%: endometrial thickening (reversible)
- 1-10%: fatigue, nausea, dizziness, hot flush

**Compared to leuprolide:**

- favourable side effect profile (fewer hot flashes, less profound suppression of estradiol levels, less osteoporotic concerns)

**Surgery (especially hysterectomy)** is the predominating treatment for uterine fibroids, therefore ulipristal may be used prior to surgery to relieve symptoms and reduce fibroid sizes.
| **Antiepileptic Drug (AED); Glutamate Receptor Antagonist**^{11} | **Modulator** | **Adjunctive therapy for partial-onset seizures in adults not satisfactorily controlled with conventional therapy.**^{11} | **Monitor for serious psychiatric and behavioural reactions (aggression and hostility) during titration and at higher doses (12mg/day)** | **Reduction in seizure frequency compared to placebo when used adjunctively (median change of -26.3% vs -21.0% after 28 days, perampanel 8mg vs. placebo)**^{12} | **CDEC recommends to list with conditions:**  
patients are currently receiving two or more AEDs, less costly AEDS are ineffective or inappropriate, and patients are under the care of a physician experienced in treating epilepsy.^{13}  
This places permpannel as add-on therapy after at least two other AEDs used concomitantly have been tried.  
$348.55/34d$ (once daily oral tablet)  
$64.18/34d$ (once daily oral tablet)  
$2265.76$ per 34 days (twice daily oral capsule)  
Tecfidera™ is not cost-effective^{20}  
Glatiramer: $1384.88$ per 30 days (once daily SQ injection)  
Telephone: 1-800-667-3425 (SK); 966-6340 (Saskatoon)  
Fax: (306) 966-2286  
Text: (306) 260-3554 |
| **Fumarate acid derivative; systemic immunomodulator**^{18} | **Systemic derivative; acid Fumarate (dimethyl Tecfidera™ agonist adrenergic Beta**^{3}\(^{14}\)) | **MOA: Selective β\(_3\) agonist, causing relaxation of the bladder smooth muscle and an increase in bladder capacity.**^{14,15} | **Avoid in uncontrolled hypertension (≥180/++ ≥110mmHg) and pregnancy**^{14} | **Reduces mean number of micturition and incontinence episodes (one to two fewer per 24 hours)**^{16} | **No head-to-head trials**  
Suggested to use after failure or intolerance to other antimuscarinic drugs (e.g. oxybutynin, tolterodine) (due to potential for serious adverse effects, high costs, and lack of long-term data)^{17}  
CDEC is currently reviewing its recommendation.  
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| **Tecfidera™ (dimethyl fumarate)** | **Fumarate acid derivative; systemic immunomodulator**^{18} | **Monotherapy for the treatment of relapsing-remitting multiple sclerosis (MS).**^{18} | **May decrease lymphocyte count, elevate liver enzymes, and cause proteinuria; monitor CBCs, liver enzymes, and urinalyses**^{18} | **Reduces relapse rates (NNT=6)**^{19} | **CDEC recommends to list with conditions:**  
patients are currently receiving two or more AEDs, less costly AEDS are ineffective or inappropriate, and patients are under the care of a physician experienced in treating epilepsy.^{13}  
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| **Myrbetriq™ (mirabegron)** | **Beta-3 adrenergic agonist**^{14} | **Treatment of overactive bladder with symptoms of urgency, urgency incontinence, and urinary frequency.**^{14} | **Avoid with chronic kidney disease, narrow T\(_{1}\) \(_{2}\)D\(_{6}\) drugs (increases plasma concentrations of \(_{2}\)D\(_{6}\) substrates), digoxin (increases digoxin AUC), and QT prolonging drugs (additive effect)**^{14} | **May cause urinary retention**^{14} | **No head-to-head trials**  
Suggested to use after failure or intolerance to other antimuscarinic drugs (e.g. oxybutynin, tolterodine) (due to potential for serious adverse effects, high costs, and lack of long-term data)^{17}  
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References


