

SAFETY FILTER		OPR Issues Database #2146 TRIM record #R12/24073
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**1. TITLE: Gardasil and multiple sclerosis**

**2. WHAT IS THE SOURCE OF THE SAFETY CONCERN?**

- Spontaneous reports to TGA

**3. WHAT PRODUCTS ARE INVOLVED?**

- Gardasil
- Quadrivalent Human Papillomavirus (Types 6,11, 16, 18) Recombinant Vaccine
- Gardasil is a sterile preparation for intra muscular administration by injection

**4. WHAT IS THE SAFETY CONCERN?**

- In 2008, the Gardasil Expert Panel (GEP) reviewed the safety of Gardasil. One particular focus was CNS demyelinating disorders. The GEP concluded (report is at R11/293745): “Based on the currently available evidence, the incidence of demyelinating disorders amongst recipients of Gardasil vaccine is not demonstrably higher than would be expected by chance.”
- The ADRS database was reviewed for more recent reports of multiple sclerosis (MS) and other disorders reviewed by GEP (acute disseminated encephalomyelitis (ADEM), Guillain-Barré Syndrome (GBS), optic neuritis, transverse myelitis).

**5. HAS THE ISSUE BEEN DEALT WITH PREVIOUSLY?**

- The AU\_PI for Gardasil lists only ADEM and GBS under Post-marketing Reports. The issue has previously been reviewed in detail by the GEP.

**6. IS THE SAFETY CONCERN POTENTIALLY RELEVANT?  YES**

- Since the GEP review, TGA has received a further five reports of MS (250708, 261158, 291133, 293905, 295861), two reports of optic neuritis (246080, 250647), and one report each of ADEM (250642) and GBS (269554) following Gardasil administration.
- None of the five MS reports can be confirmed, mainly because of the source of the report (non-treating doctor via sponsor, email, newspaper article, and internet blog)
- For the other reports, 246080 contains minimal information, in 250642 the diagnosis is described as unclear, and 269554 is confounded by the fact that the patient received two other vaccines along with Gardasil (hepatitis B and varicella), and had a viral illness shortly after vaccination.

**7. RECOMMENDATIONS:**

- Review is required  NO
  - Since the GEP review, a further nine reports have been received describing multiple sclerosis or other possible demyelinating disorders, over the period late-2008 to February 2012. The reports largely lack the information needed to corroborate the suggested diagnosis, despite attempts at follow-up.
  - Additional reports received at TGA over the three years following the GEP report do not provide further evidence for a link between Gardasil and multiple sclerosis or other demyelinating disorder.