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LONDON, UK (GlobalData), 18 October 2012 - Back problems are fast becoming a global epidemic, as aging populations, obesity, and conditions such as cancer or osteoporosis lead many individuals to
injure
their
spines
, and develop
Vertebral
Compression
Fractures
(VCFs), states a new report by healthcare experts GlobalData.

Vertebroplasty and vertebral augmentation consist of the insertion of bone cement into fractured vertebrae using a special needle. The new report* states that these treatments are likely to become more popular over coming years, due to the launch of new technologies.

Vertebroplasty device manufacturers have launched new devices which offer more precise bone cement delivery techniques, reducing the probability of bone cement leakage and subsequent fracture among patients.

In addition to better delivery mechanisms, the vertebroplasty manufacturers are also exploring opportunities to develop alternatives to poly(methyl methaacrylate) (PMMA), which is currently

used as bone cement in most of the procedures. PMMA used commonly in both vertebroplasty and vertebral augmentation has a tendency to leak from the crevices, particularly in vertebroplasty procedures. This results in increased risk of subsequent fractures as well as contributing to pain.

To counter this problem, vertebroplasty device manufacturers are exploring various alternatives to PMMA such as bio-ceramic bone cement, composite resin cement (such as Cortoss by Orthovita), calcium phosphate and calcium sulfate cement, carbonated hydroxyapatite cement, partially absorbable bone cement (Cerament by BoneSupport) and so on. New PMMA formulations are also explored as an alternative. These new filler materials have the potential to show better biocompatibility, biomechanical strength and radiopacity (for fluoroscopic guided procedures) than previously used PMMA formulations.

The global vertebral augmentation and vertebroplasty devices market was valued at $981.8m in 2011 and is forecast to grow at Compound Annual Growth Rate (CAGR) of 12.6% in the 2011–2018 period.