## 2016 junior doctor strikes in England had 'significant impact' on healthcare provision

Thousands of appointments cancelled; effects greatest when emergency care withdrawn

The 2016 junior doctors strikes in England had a 'significant' impact on the provision of healthcare, with thousands of appointments cancelled, and significantly fewer admissions and A&E attendances than expected, reveals research published in the online journal *BMJ Open*.

The effects were greatest during the last of the periods of industrial action, when junior doctors withdrew emergency care. But there was no obvious change in the death rate during any of the strikes.

In the first four months of 2016, junior doctors from all specialties across England went on strike in protest against contractual changes brought in by the government. Before these strikes there had been only one other strike in the previous 40 years--in 2012.

Each of the four strikes lasted 24-48 hours: 12 January; 10 February; 9-10 March; and 26-27 April. This last was the only strike that included withdrawal of emergency care.

Gaps in routine care offer an opportunity to assess the effectiveness of current systems and pinpoint weaknesses in response to staff shortages.

The researchers therefore compared hospital activity the week of each of the strikes with that from the preceding and following weeks. They focused on numbers of admissions, outpatient appointments, and A&E attendances.

During the 12 weeks of the study, there were 3.4 million admissions, 27 million outpatient appointments, and 3.4 million A&E attendances.

Compared with the weeks preceding and following the strikes, there were over 9 percent (31,651) fewer admissions, nearly 7 percent (23,895) fewer A&E attendances, and 6 percent (173,462) fewer outpatient appointments than expected.

April's strike had the largest impact on services: there were over 15 percent (18,194) fewer admissions, including nearly 8 per cent (3383) fewer emergency admissions, and almost 20 percent fewer planned admissions.

Hospitals scheduled 11 percent (109,915) fewer outpatient appointments during this strike, while patients kept 134,711 (just over 17%) fewer of them. The number of outpatient appointments cancelled by hospitals also rose by almost 67 percent (43,823).

During all four strikes, hospitals cancelled nearly 300,000 outpatient appointments--52 percent higher than the volume expected for this period--possibly to protect more critical services, suggest the researchers.

Certain regions seemed to be disproportionately affected. The proportion of cancelled appointments increased to between 66 and 68 percent in Yorkshire and the Humber, South East Coast, and London. These regions also had the largest proportions of missed appointments.

The impact on emergency admissions was smaller, but greatest in the South West and the West Midlands.

The number of recorded deaths didn't change significantly during the strikes and wasn't higher than expected, due to relatively small numbers. But hospital mortality is likely to be the least sensitive outcome for quality and safety concerns in this context, the researchers point out.

This is because deaths caused by poor care aren't likely to show up immediately, nor is it clear whether patient health might have worsened as a result of delayed appointments and procedures, they explain.

But these issues, along with the financial impact, might be fertile avenues to explore in future research, they suggest.

They accept that they didn't assess the impact of the strikes on patients who didn't attend A&E, or the potential impact on the so-called 'weekend effect,' or how patients felt about their delayed care.

But they nevertheless conclude: "Industrial action by junior doctors during early 2016 caused a significant impact on the provision of healthcare provided by English hospitals."