Patients' sex and gender are being confused by doctors at the risk of reducing the effectiveness of treatment, a group of senior medical researchers, led by the University of St Andrews, has concluded.
The team, which includes practicing doctors and researchers with decades of experience in gender and sex issues, has today (Friday 2 April) published an article in the British Medical Journal which makes it clear that sex and gender are not the same and says that currently medical staff often do not make the distinction which could make any treatment ineffective or inappropriate.

Dr. Margaret McCartney, of the School of Medicine at the University of St Andrews, said: "There are many instances of sex and gender being confused by the research community and society more broadly.

"Unless we identify and count categories correctly, we will end up with errors which serves all populations poorly, including minority populations."

Sex and gender are not synonymous. Sex, unless otherwise specified, relates to biology: the gametes, chromosomes, hormones, and reproductive organs.

Gender relates to societal roles, behaviors and expectations that vary with time and place, historically and geographically.

Both categories are important and describe different attributes that must be considered depending on the purpose they are intended for, suggests the paper.

The World Health Organization states: "Gender is used to describe the characteristics of women and men that are socially constructed, while sex refers to those that are biologically determined."

However, contemporary medical research and clinical practice often erroneously use sex and gender interchangeably.
Professor Susan Bewley, Emeritus Professor (honorary) in Obstetrics and Women's Health at King's College London, said: "Medical care requires an understanding of the difference between sex and gender categories; untangling them is crucial for safe, dignified, and effective healthcare of all groups.

"Avoidable harm may result when they are conflated—for example, if sex specific laboratory reference ranges are used for people whose gender is recorded but not their biological sex or hormone prescription."