**FACTSHEET**

**Signs and Symptoms – Functional Laterality**

**What is laterality?**

Laterality refers to a natural asymmetry in left or right-side dominance, for example in terms of handedness, or brain function. People with schizophrenia may show differences in handedness or footedness, as well as altered visual and auditory dominance, which may reflect abnormalities in brain laterality and dominance.

Handedness refers to the preference for using one hand over the other for certain tasks. Right handed people show increased dexterity in their right hand, left handed people show increased ability the left hand. People may also be ‘mixed’ handed and show different hand preference for different tasks.

Listening tasks can be used to assess language lateralisation. Participants are presented two different stimuli. Verbal stimuli are usually perceived better in the right ear.

**Is there any evidence for altered laterality in schizophrenia?**

High quality evidence suggests that people with schizophrenia are more likely to be non-right handed than controls or people with other psychiatric disorders. Moderate to high quality evidence suggests this finding is similar for males and females, and may be most apparent when behavioural assessments are used.

Moderate quality evidence suggests people with schizophrenia had a less right-ear dominance compared to controls on fused-word and consonant-vowel listening tasks.

Moderate to low quality evidence suggest people with schizophrenia showed an absence of normal leftward asymmetry in the planum temporale and Sylvian fissure, and an excess rightward asymmetry in the STG (particularly posterior). There was also a higher frequency of abnormal (reversed) asymmetry in the frontal and occipital lobes in people with schizophrenia compared to controls.

**Further information**

See Technical Table