Introduction

Rabies, a single stranded RNA virus of the genus Lyssavirus, is a neurotropic virus transmitted in the saliva of infected animals. It is endemic on all continents except Antarctica and is the cause of a viral encephalitis that kills approximately 50,000 to 70,000 people/year, mostly in Africa and Asia (Abela-Ridder et al., 2016). In the case of a bite by a rabid animal, effective post-exposure prophylaxis (PEP) comprises immediate washing of the wound(s) followed by prompt administration of a World Health Organisation (WHO) approved vaccine and purified rabies immunoglobulin (RIG) (Brown et al., 2018; Member States of Strategic WHO Advisory Group, 2018). Although rabies is no longer endemic in the UK, it remains a significant problem in returning travellers. There are approximately 2000 PEP courses issued/year, 85-96% for returning travellers and approximately 10-15% for bat exposure in the UK (Smith, 2005).

Objectives and Standards

(Fall and Cooke, 2007; Hassan et al. 2004)

Correct patient risk assessment – all details of the patient’s exposure should be collected and risk assessment carried out by the Duly Virologist (DV). Standard 90%

Correct and timely prescription and administration of rabies PEP – the correct PEP should be prescribed on the hospital internal IT system by the DV and it should be administered to the patient by a clinician in a timely manner (within 1 working day or within the period specified within the guidelines (Brown et al., 2017; 2018)). Standard 90%

Communication and record keeping: communications between teams including the original referral, rabies clerk, pharmacy and clinicians that will administer PEP should be clearly recorded by the DV. Standard 75%

Sample and Methods

All cases in which rabies PEP was prescribed between the dates 1/8/2015 and 1/8/2018 excluding cases where the risk assessment was carried out elsewhere. Original case data obtained from hard copy pharmacy prescription records. Data for each aim obtained in the following way:

Aim 1 – risk assessment: record kept on the internal hospital database or on PHE risk assessment form.

Aim 2 – the date of referral recorded and the date of prescription and administration to patient recorded on the internal hospital database. Hard copies retained by the pharmacy.

Aim 3 – Internal hospital database and hard copy records kept by the DV. Details of risk assessment emailed or faxed to PHE and GP retained by the DV.

Results

Compliance with audit standards (46 cases between 1/8/2015 and 1/8/2018). The compliance with the standards identified is classified by Aims 1; 2 and 3 respectively. In each case, the standard set is indicated with a dotted line and the percentage of cases compliant are plotted on each respective bar chart. All cases where standards were met are plotted in green, and where standards were not met, in red. 9 cases were recorded from 03/2018 (aim 3 - GP).

Key successes

- The standards specified under aims 1 and 2 were met and exceeded.
- It was shown that the risk assessment carried out by the DV correctly took into account the long incubation period of rabies (Dimaano et al., 2011).
- The service met the required standards (75%) for most of communication and record keeping targets.

Key concerns

- Standards were not met for the clear record of communications with the rabies clerk and a named pharmacist.
- No records were kept of cases where PEP was not prescribed as original data was collected from the pharmacy. A full evaluation of aim 1 (correct risk assessment) would require a list of cases where no PEP was issued.

References