Angioedema is a rapid swelling of the skin and mucous membranes in the head and neck area and should be treated as an emergency [1]. Rituximab is a chimeric monoclonal antibody used in chemotherapy against the CD20 surface molecule [2].

We are reporting two cases of angioedema on Rituximab:
- A 66 years old man with DLBCL who received four courses of RCHOP (Rituximab, Cyclophosphamide, Doxorubicin and Vincristine). On the fifth course and 15 minutes after starting administration of rituximab, he developed angioedema, after that, he received hydrocortisone and adrenaline and was quickly transferred to the intensive care unit, 12 hours later, he was pronounced dead.
- A 52 years old woman with a history of pulmonary tuberculosis treated 18 years ago, treated for marginal zone lymphoma with RCHOP protocol, she presented an angioedema two hours after the start of the rituximab infusion during the 2nd course of the protocol. The patient received hydrocortisone and adrenaline and she recovered well.

The cause/effect assessment was carried out according to the French method after a thorough investigation [3].

For both cases, the results showed that rituximab was incriminated with an intrinsic imputability score of 15 and an extrinsic imputability score of 4, caused by administration of a high rate of rituximab (200mg/h) at the start of the infusion.
To avoid this type of adverse event, the hospital pharmacist adjusted the rituximab infusion, starting with infusion rate of 50mg/h for 30 minutes and then increasing by 50mg/h every 30 minutes to reach a maximum of 400mg/h.

This observation illustrates the role of the hospital pharmacist in increasing health vigilance among health professionals: angioedema following the administration of Rituximab.