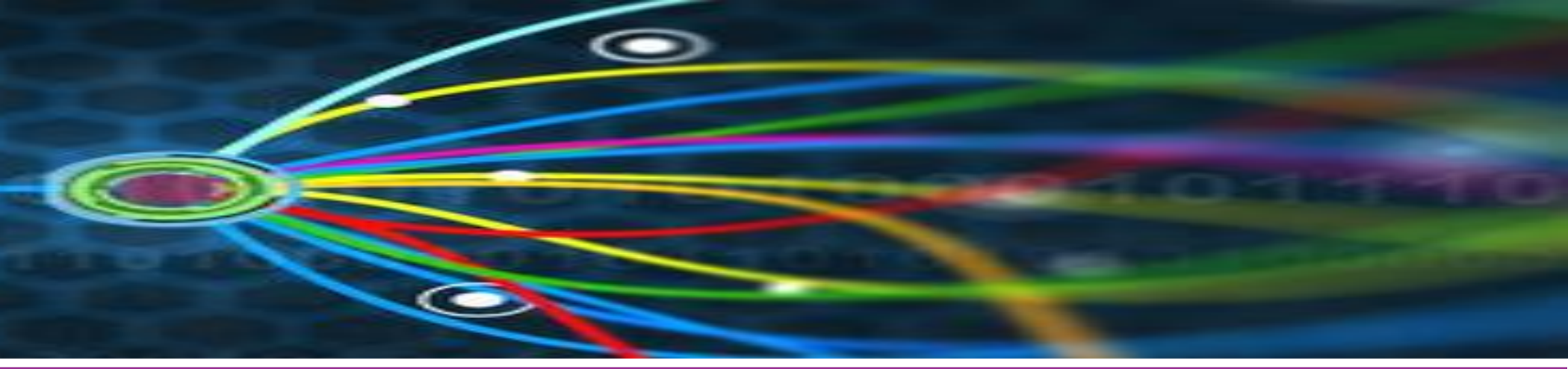
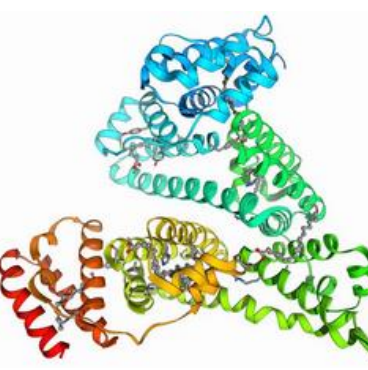


# Cochrane reviews facilitate decision-making in clinical practice



## The value of Cochrane reviews for informing health decisions on optimal use of albumin



### Background

Albumin is a plasma derivative widely used in routine clinical practice. However, its administration in some scenarios is **not always justified** by evidence of benefit in **relevant clinical outcomes**. This, together with the increasing consumption and the limited availability, make it necessary to review its indications for use.

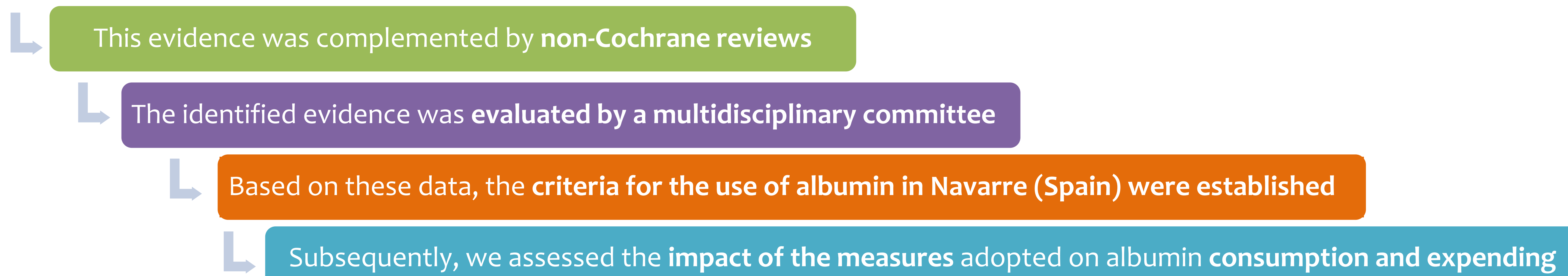
### Objectives



- To analyse the evidence from systematic reviews on the efficacy and safety of albumin in different scenarios
- To make recommendations on the appropriate use of albumin in different scenarios based on the evidence from systematic reviews
- To describe the value of Cochrane systematic reviews for decision-making in clinical practice, and the impact on the efficient use of health resources

### Methods

A search for **Cochrane systematic reviews** was conducted in December 2019 to **inform a regional guideline** on albumin use



### Results

We identified:

- ❖ **4 Cochrane reviews:**  
Two in people with cirrhosis (Simonetti RG 2019, Best LM 2019), 1 for resuscitation in critically ill people (Lewis SR 2018), and 1 in nephrotic syndrome (Ho JJ 2019)
- ❖ **7 non-Cochrane reviews**

A **36%** of the evidence synthesis products used were **Cochrane reviews**

#### ADOPTED CRITERIA FOR ADEQUATE USE OF ALBUMIN:

##### PATIENTS WITH LIVER DISEASE

- ✓ **Justified use:**
  - Paracentesis >5 liters
  - Cirrhosis and ascites with oedema: maximum albumin dose 10 g/day
  - Spontaneous bacterial peritonitis: only if bilirubin >4 mg/dl and/or sCr>1 mg/dl
  - Hepatorenal syndrome: with vasoconstrictors after withdrawal of nephrotoxic drugs (maximum 14 days)
  - Decompensated cirrhosis: restricted to a pilot study including patients with recurrent ascites (≥3 episodes of tension ascites / year) who are candidates for hepatic transplantation
- ✗ **Unjustified use:**
  - Bacterial infections other than spontaneous bacterial peritonitis
  - Hyponatremia
  - Prevention of hepatic encephalopathy

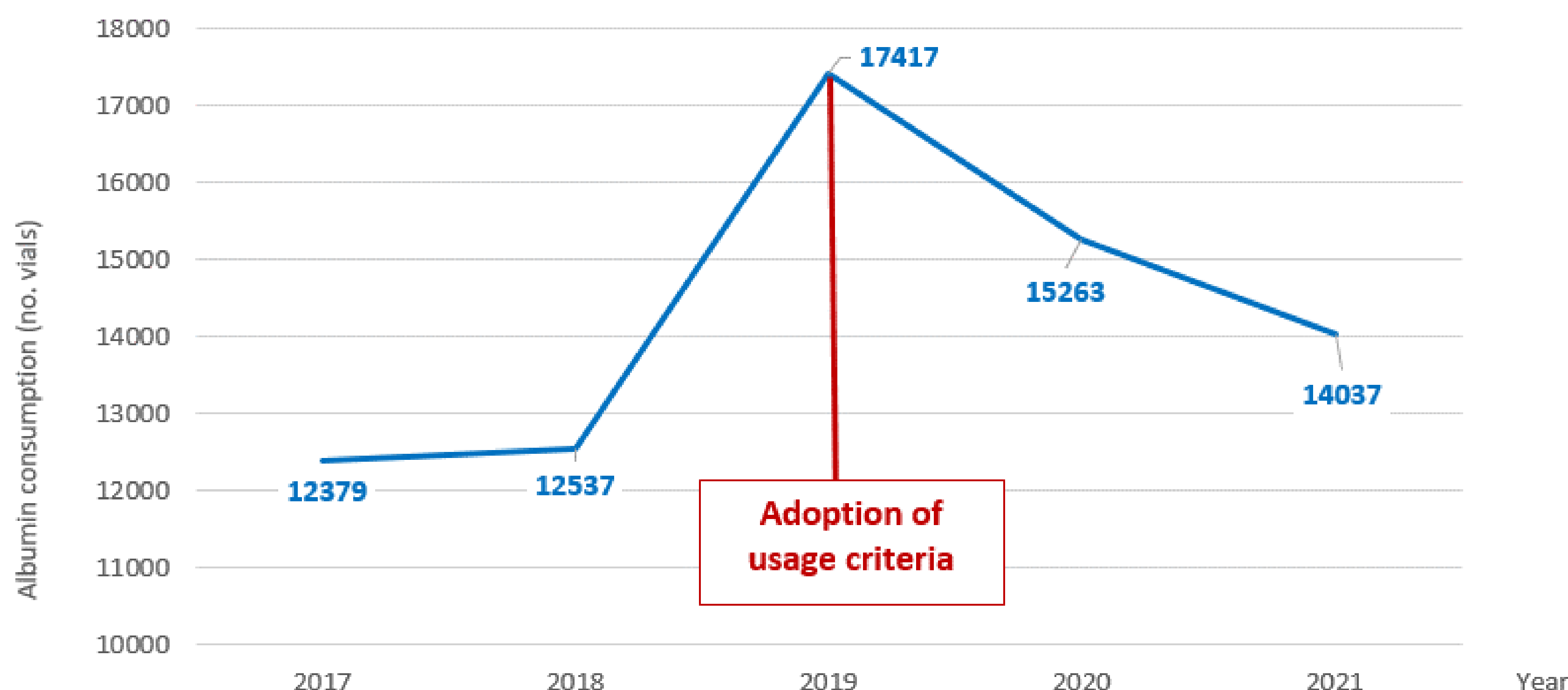
##### CRITICALLY ILL PATIENTS

- ✓ **Justified use:**
  - Sepsis / septic shock
  - Traumatic coagulopathy
  - Surgery
  - Burns
- ✗ **Unjustified use:**
  - Hypoalbuminaemia without septic / hypovolemic shock
  - Neurological patients

##### SURGICAL PATIENTS

- Intraoperative: crystalloids should be the first option
- Cardiac surgery: replacement of albumin by cristalloids in priming of the extracorporeal circuit. If insufficient: synthetic colloids
- ✗ **Unjustified use:**
  - Surgical patients during the postoperative period

Figure 1. Evolution of albumin consumption in Navarre, Spain (2017-2021)



➡ **Adoption of criteria for adequate use of albumin**  
➡ **Reduction in albumin consumption**

2020 vs 2019: 12.4% reduction

2021 vs 2019: 19.4% reduction

➡ The reduction in albumin consumption resulted in a **saving** of around **67,000 €**



### Conclusions

Cochrane reviews **facilitate decision-making** in clinical practice, resulting in a **better utilisation of available resources**

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