Patient Perspectives on the Lifelong Impact of Preterm Birth in Chronic Respiratory Disease Care

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Context & objectives

Approximately **15 million infants** are born prematurely each year [1].

Preterm status is often associated with **lifelong chronic respiratory conditions**, such as asthma and Chronic Obstructive Pulmonary Disease (COPD) [2]. Data on prematurity impact on respiratory disease progression and management in adulthood remain limited.

This study aims to investigate **patient awareness** of their **preterm status**, its **perceived impact** on their respiratory health, and how **healthcare professionals** (HCPs) consider preterm status when **managing** these conditions.

Methods

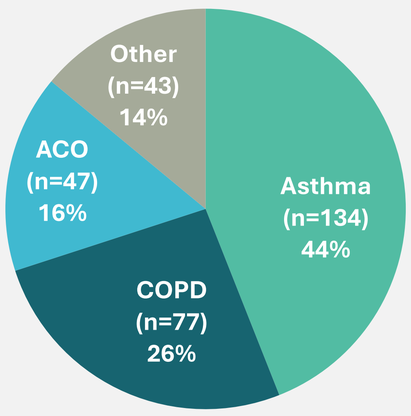
- This **cross-sectional**, **international** study based on a web-based survey**, was approved by the WCG** institutional review board (IRB) and was composed of **34 questions**: screener (5 questions); sociodemographic and medical profile, preterm awareness (24 questions); patient care journey (5 questions)
- Adults who **were born preterm** (before 38 weeks) and **diagnosed with asthma, COPD or another chronic respiratory disease**, were recruited through Carenity, an online patient community, social media campaigns and Carenity's partners.
- Differences between subgroups were assessed using **Chi-2 tests** and **Wilcoxon tests. Multivariate logistic regressions models** were used to evaluate the impact of factors on perceived severity.

➔ Data from **301 participants** were collected from March to June 2024, in **France (n=109)**, **Germany (n=39)**, **Spain (n=37)**, the **UK (n=72)**, the **US (n=44)**.

Results

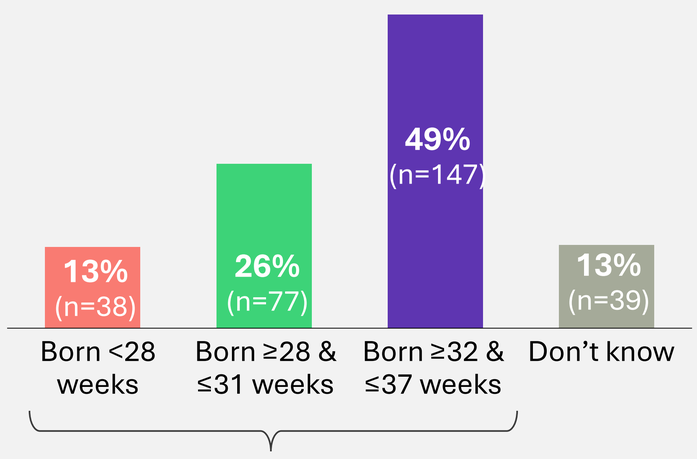
Patients' profile and preterm status

Fig1. Reported respiratory conditions (n=301). ACO: Asthma-COPD overlap syndrome



Mean age (y): 51.9 (SD:15.3)
Gender ratio: 74% women, 26% men

Fig2. Reported preterm status (n=301)



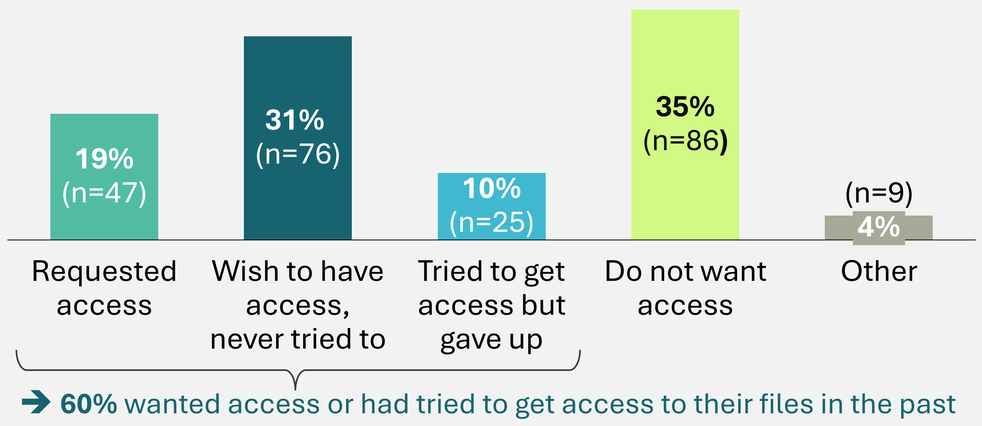
➔ **87%** of patients **knew** their preterm status

Awareness and access to medical history

➔ **87%** of respondents had **medical information** on their first days of life, mostly through **discussions** with relatives (81%).

➔ **19%** had access to their medical files.

Fig3. Among respondents without access to their medical dossier (n=243), willingness to have access to these files regarding their first days of life



➔ **60%** wanted access or had tried to get access to their files in the past

Impact of preterm birth on respiratory condition severity in adulthood

Categories (n)		OR (IQR)	*p*
Age	<40 (67)	*ref*	
	≥40 & <60 (84)	1.79 (0.78; 4.24)	0.174
	60+ (89)	**2.80 (1.14; 7.07)**	**0.026**
Respiratory conditions	Asthma (115)	*ref*	
	COPD (58)	**3.26 (1.31; 8.37)**	**0.012**
	ACO (43)	**4.44 (1.88; 10.79)**	**<0.001**
	Other (24)	**3.95 (1.49;10.58)**	**0.006**
Preterm status	Moderate to late (135)	*ref*	
	Very to extremely (105)	1.20 (0.66; 2.21)	0.547
Smoking status	Never smoke (88)	*ref*	
	Former smoker (86)	1.24 (0.55; 2.76)	0.594
	Current smoker (66)	0.92 (0.38; 2.15)	0.843

Table1. Odds of having a severe to very severe respiratory condition, results from a multivariate logistic regression

➔ The odds of having **a severe to very severe respiratory condition** were significantly higher for **patients over 60** years old, patients with **COPD** (with or without asthma) and other respiratory conditions

➔ Respiratory condition **severity** was **not influenced** by the **degree of prematurity**

Estimated impact of preterm birth on lifelong health

➔ **Impact** of preterm birth on lifelong health was considered **moderate** (median rating: 3/5) by patients and **varied** with **existing conditions**

Fig4. Median patients' estimation of preterm birth impact on lifelong health by respiratory condition, on a scale of 1: no impact to 5: important impact

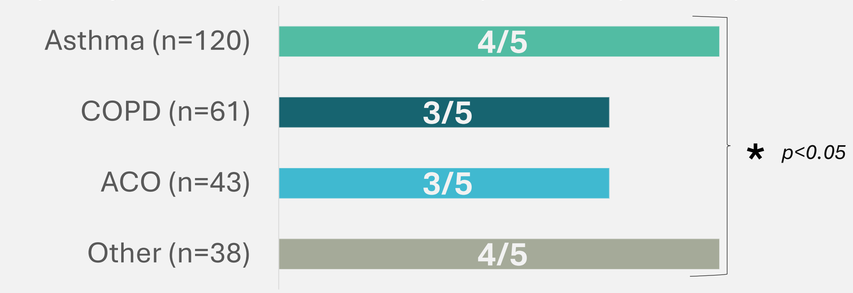
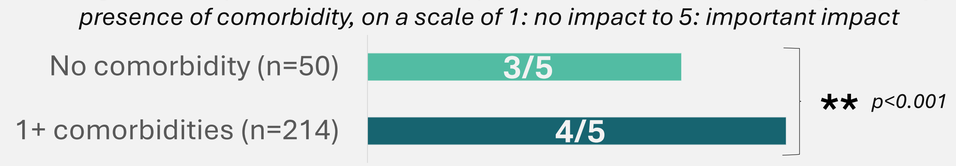
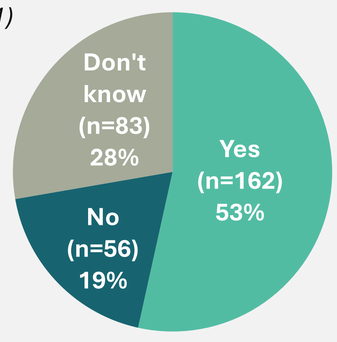


Fig5. Median patients' estimation of preterm birth impact on lifelong health by presence of comorbidity, on a scale of 1: no impact to 5: important impact



HCP's consideration of preterm status during care journey

Fig6. Proportion of patients thinking that prematurity should be considered when managing their respiratory condition(s) (n=301)



➔ Most patients believed that their preterm status **should be considered** when managing their condition

➔ Yet, only **1/4** shared it spontaneously when meeting their current HCP

➔ **1/3** of the HCPs with who preterm status was shared **did not react**.

Fig7. Proportion of patients who shared their preterm status during the first appointment with the HCP currently managing their condition(s) (n=287)

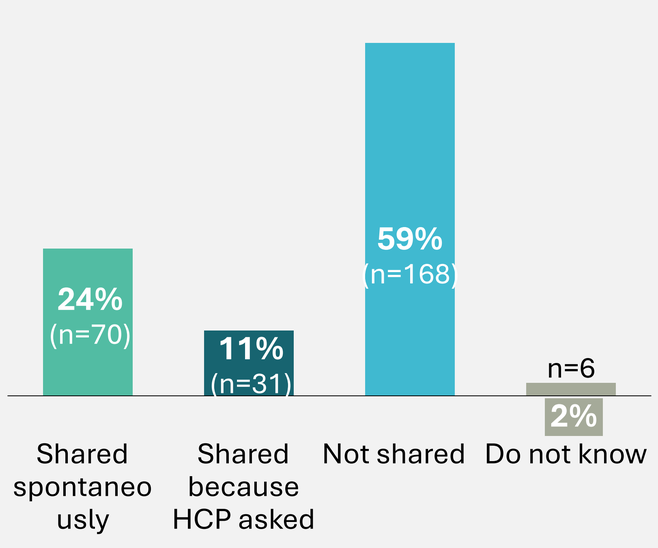
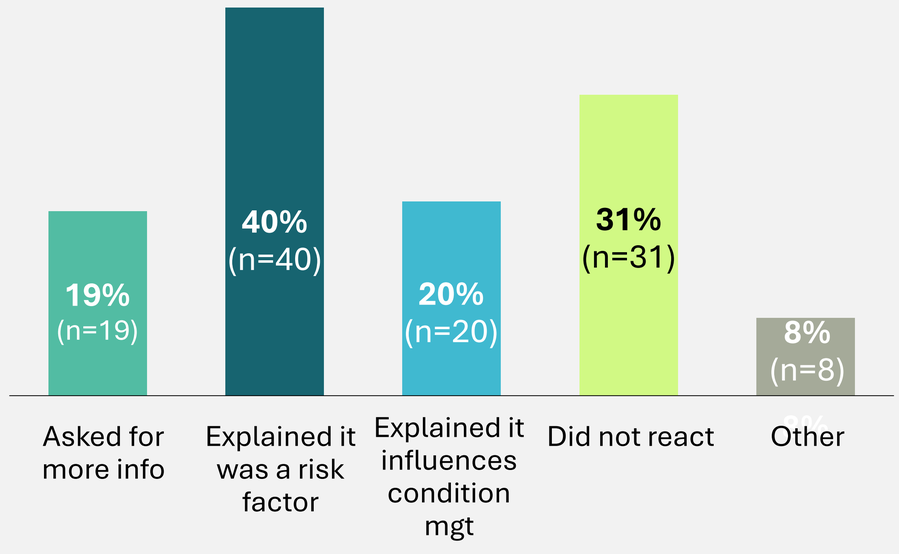


Fig8. HCP reaction to preterm status being shared (for patients who shared their preterm status, n=101)



Conclusion

- **Most adults** with **chronic respiratory conditions** born prematurely are **aware of their preterm status** and perceive it as having a **moderate lifelong impact on their health**.
- However, **prematurity does not** appear to **significantly influence the severity** of **respiratory diseases** in **adulthood.**
- While many patients believe preterm status **should be considered in their care**, **HCPs rarely incorporate** this information.

➔ **Increasing awareness** among HCPs about the **long-term effects of prematurity** may support **more tailored disease management strategies**.

References:

1. Torchin H, Ancel PY, Jarreau PH, Goffinet F. [Epidemiology of preterm birth: Prevalence, recent trends, short- and long-term outcomes]. *J Gynecol Obstet Biol Reprod (Paris)*. 2015;44(8):723-731. doi:10.1016/j.jgyn.2015.06.010
2. 2. Di Filippo P, Dodi G, Ciarelli F, Di Pillo S, Chiarelli F, Attanasi M. Lifelong lung sequelae of prematurity. *Int J Environ Res Public Health*. 2022;19(9):5273. doi:10.3390/ijerph19095273

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