

Is the 'blue' colour convention for inhaled reliever medications important? A UK based survey of HCPs and patients with airways disease

Introduction

In many countries (UK, parts of Europe, Canada, Australia, New Zealand), short-acting beta 2 agonist inhalers have traditionally been **coloured blue**. These have also conventionally been described as **'relievers'** by patients and Health Care Professionals (HCPs), as opposed to **'preventer'** medications (inhaled steroids). The situation is increasingly complex given the new inhaler devices and drug classes, compounds and combinations. There has been some concern that the erosion of the traditional colour convention will lead to patients and HCPs (and the general public) becoming confused which is a potential **patient safety issue**. However, there is no **'formal agreement'** on the colour coding of treatments – by pharma companies or licensing agencies such as MHRA, EMA. The UK respiratory community over the last two years, has successfully challenged industry for the need to maintain conformity with **blue inhalers for relievers**.

Aims

- To assess the perception of the importance of inhaler colour by HCPs and patients when referring to their treatments
- To ascertain whether brand and generic names are important descriptors of medications
- To assess whether the terminology relievers and preventers are still used when describing medications

Method

Self administered, anonymous online survey using Survey Monkey, delivered during a 4 week period in September/October of 2015
Distributed via wide range of UK networks and social media channels: websites, Twitter, LinkedIn

Respondents

596 Health Care Professionals (HCPs)

- 39% Doctors
- 17% Nurses
- 14% Respiratory Physiologists
- 13% Pharmacists
- 8% Other HCPs

2517 Patients (390 excluded as no lung disease specified)

- **2127 Asthma/COPD Patients**
 - 82.5% Asthma
 - 10% COPD
 - 7.5% Asthma and COPD

Results

How Patients and Health Care Professionals refer to inhalers

| HCPs | Usually n (%) | Often n (%) | Sometime n (%) | Never n (%) | Total |
|-----------------|---------------|-------------|----------------|-------------|-------|
| By Colour | 268 (45.6%) | 242 (41.2%) | 73 (12.4%) | 6 (0.9%) | 588 |
| By Brand Name | 109 (19.0%) | 274 (47.7%) | 174 (30.3%) | 17 (3.0%) | 574 |
| By Generic Name | 77 (13.6%) | 180 (31.8%) | 277 (48.9%) | 32 (5.7%) | 566 |

| Patients | Usually n (%) | Often n (%) | Sometime n (%) | Never n (%) | Total |
|-----------------|---------------|-------------|----------------|-------------|-------|
| By Colour | 943 (49.8%) | 309 (17.9%) | 397 (21.0%) | 214 (11.3%) | 1893 |
| By Brand Name | 673 (35.4%) | 360 (18.9%) | 523 (27.5%) | 346 (18.2%) | 1902 |
| By Generic Name | 328 (18.7%) | 247 (14.1%) | 679 (38.7%) | 502 (28.6%) | 1757 |

"My 7 year old knows the blue one is for when I am having an attack. It's useful to tell people I need the blue one and quicker therefore to get the medicine I need."

"People often associate the colour with a 'reliever' or 'preventer', people associate and remember colours easier than names."

"It is important to understand the medication and its role in treating asthma however knowing the colour in a serious attack is extremely important"

Health Care Professionals

95% - colour convention is important

87% - helpful if all relievers were coloured blue

11% - traditional colour conventions no-longer meaningful because of the wider range of inhaled medication

Top responses from content analysis:

- "Important to maintain blue colour for reliever inhalers"*
- "Difficult but desirable to do this for preventers/controllers"*
- "Difficult for patients to remember generic drug names"*

Patients

80% - like to know their blue inhalers are there to relieve symptoms

50% - important to understand what medicines do

90% - if one colour convention was kept, it should be the blue reliever

Top responses from content analysis:

- "Important to maintain colour conventions for inhalers"*
- "Particularly important to restrict blue colour for reliever inhalers only"*
- "Blue colour helps patients, family, friends, colleagues & schoolteachers know which is the reliever inhaler"*

Conclusions

- The concept of a 'blue inhaler' remains important to Patients and HCPs
- Colour helps to aid & simplify communications between patients and HCPs
- Also important to combine colour with other ways to describe inhalers: mode of action and name

Implications for Practice

- An official, universal colour-coding system for inhaled medication is required on the basis of patient safety reasons
- There needs to be widespread consultation with patients, HCPs, pharmaceutical industry on colour of new inhalers
 - Agreement required for a formal industry and licencing authority wide colour convention