



ELSEVIER

Contents lists available at ScienceDirect

Contact Lens and Anterior Eye

journal homepage: www.elsevier.com/locate/clae



Factors in the success of new contact lens wearers

Anna Sulley, BSc, MCOptom, FAO^{a,*}, Graeme Young, MPhil, PhD, FCOptom, DCLP, FAO^b,
Chris Hunt, MSc^b

^aJohnson Vision Care Companies, Johnson & Johnson Medical Ltd., Pinewood Campus, Nine Mile Ride, Wokingham, RG40 3EW, UK

^bVisioncare Research Ltd, UK

ARTICLE INFO

Article history:

Received 13 April 2015

Received in revised form 1 September 2016

Accepted 19 October 2016

Keywords:

Contact lenses

New contact lens wearer

Discontinuation

Dropout

Lapsed

ABSTRACT

Purpose: To determine the first-year retention rate for patients fitted with contact lenses (CLs) and identify factors associated with retention and dropout.

Methods: This multi-site study was a retrospective chart review of the status of neophyte CL wearers fitted in representative UK eye care practices.

Results: Consecutive records for 524 patients at 29 sites were reviewed. Mean age at dispensing was 34 years (range 8–79), 68% were under 45 years and 61% female. Soft CLs were fitted to 98% of patients. After 12 months, 388 were still CL wearers, a retention rate of 74% (95% CI: 70.1–77.6). Of the 136 lapsed, 25% discontinued during the first month and 47% within 60 days. The main reasons cited for discontinuation included poor distance vision (26%; of whom, 37% were toric and 51% multifocal), poor near vision (16%), discomfort (14%) and handling problems (15%). In 32% of cases, the reasons for discontinuation were unknown. For 71% of dropouts, no alternative lens or management strategy had been tried. Significant factors associated with retention in univariate analysis were: age (younger), sphere power (higher), lens type (sphere vs multifocal) and purchase frequency (regular). Multivariate analysis showed lens sphere power, purchase frequency and lens material to be significant factors. There was a wide variation in retention rates between sites (40–100%).

Conclusions: During the first year of CL wear, the overall retention rate for neophyte CL wearers was 74% (spherical CLs 79%, torics 73%, multifocals 57%), with many lapsing during the first 2 months. Factors associated with retention and dropout in these patients include: lens power, material and type, and purchase frequency. While handling and comfort are the most commonly cited performance-related reasons for discontinuing in new spherical lens wearers, visual problems are the most common among new wearers of toric and, in particular, multifocal CLs.

© 2016 British Contact Lens Association. Published by Elsevier Ltd. All rights reserved.

1. Introduction

Although many studies have investigated the level of contact lens discontinuation, the true rate of dropout from lens wear remains unclear [1–8]. Recent estimates have varied from 12% to 43% for permanent discontinuations [1,3–8]. This variation is likely to be due to differences in the location, methodology and timing of the various studies (Table 1). Those undertaken in universities [1,4,6] or through websites [7,8], for instance, may suffer from selection bias. Another complicating factor is the definition of dropout; most commonly, studies have estimated the proportion of any patients who have tried contact lenses and subsequently discontinued. However, dropout rates estimated by Rumpakis [7]

related to those contact lens wearers who discontinued in the first year [9].

Historical dropout rates are also influenced by the products available at the time. Since few of the products available in the 1990s are still used, estimates from that period are of limited interest. A better approach, therefore, is to estimate the current rate of discontinuations, either as a proportion of all current wearers or for those patients recently fitted with contact lenses. The present study has taken the latter approach, investigating the one-year retention rate for new wearers.

Various studies have examined factors relating to contact lens discontinuation [10–15]. Previous studies have identified discomfort as a prime reason for discontinuation, with vision and handling among other factors involved (Table 1). In the UK, a 2002 study of lapsed wearers found that 51% cited discomfort as the principal reason for having given up contact lens wear [10]. Among the more recent studies, Dumbleton et al. [8] reported the primary reasons

* Corresponding author.

E-mail address: asulley1@its.jnj.com (A. Sulley).

Table 1
Previous publications reporting contact lens discontinuation rates.

Reference	n	Age range (years)	Country	Methodology	Results	Reasons for Discontinuation
Dumbleton et al. (2013) [8]	4207	17–77	Canada	Web-based survey	Discontinuations: 40% Permanent discontinuations: 23%	Discomfort: 44.3% Vision: 6.3% Handling: 6.3%
Rumpakis (2010) [7,9]	372 eye care practitioners	–	US (138), Taiwan, Korea + others	Web-based survey	'Dropout rates': US–16%, Asia-PR–31%, EMA–30%	Discomfort: 45.6% Vision: 17.5% Handling: 7.0%
Richdale et al. (2007) [6]	453	18–88	US (University)	Self-administered questionnaire	Discontinuations: 24% Dissatisfied CL wearers: 26%	Discomfort: 64% Vision: 14% Handling: 0%
Jutai et al. (2003) [5]	418	15–82	Canada	Self-administered questionnaire	Discontinuations: 43%	–
Young et al. (2002) [10]	236	18–74	UK	Self-administered questionnaire	–	Discomfort: 51% Vision: 13%
Harknett et al. (2001) [4]	115	14–72	UK (University clinic)	5-year chart review	Discontinuations: 29%	–
Pritchard et al. (1999) [3]	1444	–	Canada (Quebec)	Mailshot questionnaire	Discontinuations: 34% Permanent discontinuations: 12%	Discomfort: 50% Vision: 3% Handling: 3%
Weed et al. (1993) [1]	568	–	Canada (University)	Self-administered questionnaire	Discontinuations: 51% Permanent discontinuations: 40%	Discomfort: 41% Vision: 0% Handling: 0%

for discontinuation with contemporary lenses were discomfort (24%) and dryness (20%).

Several factors relating to lens parameters, material and modality have been associated with discontinuation, including lower sphere power [3], and use of silicone hydrogel (SiH) and daily disposable lenses [8]. A previous study suggested that the skill of the eye care practitioner is a key factor in many cases [12]. This was supported by the fact that a high proportion of lapsed wearers (77%) could be successfully refitted [10]. A further study found that many astigmats (74%) who had previously dropped out of contact lens wear could be successfully fitted with current toric soft lenses [16]. Dropout rates may therefore relate to differences in procedures between individual contact lens practices and practitioners, as well as differences between patients and between contact lens types.

Previous studies have also attempted to suggest methods for minimising contact lens dropouts [18–22].

The most common remedies include using a wide selection of products [11,18,19], careful prescribing for presbyopes [17,18], switching care system [17], and close follow-up of new wearers [21].

Since these studies were conducted, new contact lens designs, materials and care systems have been introduced. Practice procedures may also have changed. The purpose of this study was therefore to determine the first-year retention rate for new wearers fitted with current contact lenses and identify patient, lens and practice-related factors associated with retention and dropout.

2. Materials and methods

This multi-site, sponsor-masked study was a retrospective chart review of the current status of new contact lens wearers fitted in eye care practices in the UK. The protocol was approved by the West of Scotland NRES Ethics Committee prior to undertaking the study. Neophyte wearers were defined as those with no habitual contact lens wear in the previous 3 years. Habitual wear did not include short contact lens trials (≤ 2 weeks). Patients were required to be at least 8 years old on the date contact lenses were first dispensed and to have been dispensed lenses for the first time during an 18-month period between September 2011 and March

2013. Those eligible for contact lenses under the National Health Service for medical or other reasons were excluded from the study.

Investigational sites were recruited using various methods, including via mailshots, journals and social media. Practices were expected to be fitting more than two new contact lens patients a week, easily able to review patient data and willing to follow the study protocol. Practices were chosen to be broadly representative of the UK market. The 29 sites recruited were categorised according to practice type and location. Independents were considered to have 1–9 practices (52% of sites), regional groups 10–49 practices (7%) and national groups 50 or more practices (41%). Sites recorded their locations as town (45%), city centre (28%), suburban (24%) or village (3%). Locations were spread around the UK, including Scotland, Wales and Northern Ireland.

At each site, a nominated member of practice staff conducted the retrospective review of practice records. All staff were trained in the study procedures via an interactive, self-administered web presentation with a series of multiple-choice questions at the end.

Records of contact lens fittings were reviewed in a chronological manner from September 2011 in order to identify up to 25 neophyte patients dispensed lenses within the specified period. Practitioners used a variety of methods to identify those eligible, such as reviewing consecutive entries in the appointment book, order records or register of new patients. The anonymity of patients was protected. Detailed information from each record on contact lens type, powers, replacement frequency (daily, two-weekly or monthly) and purchasing habits (quarterly, yearly or other specified frequency) was recorded on a patient-specific questionnaire.

Investigators were required to state whether the patient was still wearing contact lenses (Yes/No), together with any change of lens type, with details taken from the patient and practice records. While no specific guidance was given, practices used various strategies for determining whether patients had discontinued and why, such as reviewing the records in discussion with the patient or during subsequent contact with the practice. The date of dropout and main reasons were recorded, along with any alternative lens or lens care strategies tried. Investigators were also required to complete a site-specific questionnaire relating to their type and mode of practice, procedures and staff.

Download English Version:

<https://daneshyari.com/en/article/5573595>

Download Persian Version:

<https://daneshyari.com/article/5573595>

[Daneshyari.com](https://daneshyari.com)