

DIALYSIS: THE DEMAND FOR PRINTED PATIENT INFORMATION MATERIALS ON THE HEALTH LITERACY OF CHRONIC KIDNEY DISEASE (CKD) PATIENTS

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ABSTRACT

Haemodialysis is an awkward and treacherous process requiring high attention of both patients and attendants. It will be worthwhile when we assess the medication knowledge of such patients and providing them with pertinent medication related information. Ideally designed patient information materials can augment other educational guidance and also ameliorate patient care. Much of the health care providers communicate with their patients verbally. But this may bring about misapprehend and overlook in patients. There is a superlative need for patients to get informed with their disease, medication, lifestyle, nutritional changes. It is paramount to determine the readability of patient information materials and the hindrance in providing patient

education are to be removed.

KEYWORDS: Chronic kidney disease (CKD), Haemodialysis, Patient education, Patient information materials, Self governance.

INTRODUCTION

Chronic kidney disease (CKD) is a condition with gradual loss of renal function with an increasing incidence and high prevalence worldwide. The patients are receiving bounded informations from healthcare providers on account of heavy workload and patient load.^[1-3] And most probably information are given verbally. So majority of patients may not perpetuate the information provided to them. Printed patient information materials serve as efficient tools in this state of affairs.^[2] The self governance on fluid management, salt management, lifestyle modification, nutritional information and management of thirst are

very crucial in haemodialysis.^[3] Educational programs may capitulate the patient backwardness towards disease and medication usage and mould them to take daily decisions to address chronic kidney disease (CKD).^[4]

The mechanism of haemodialysis

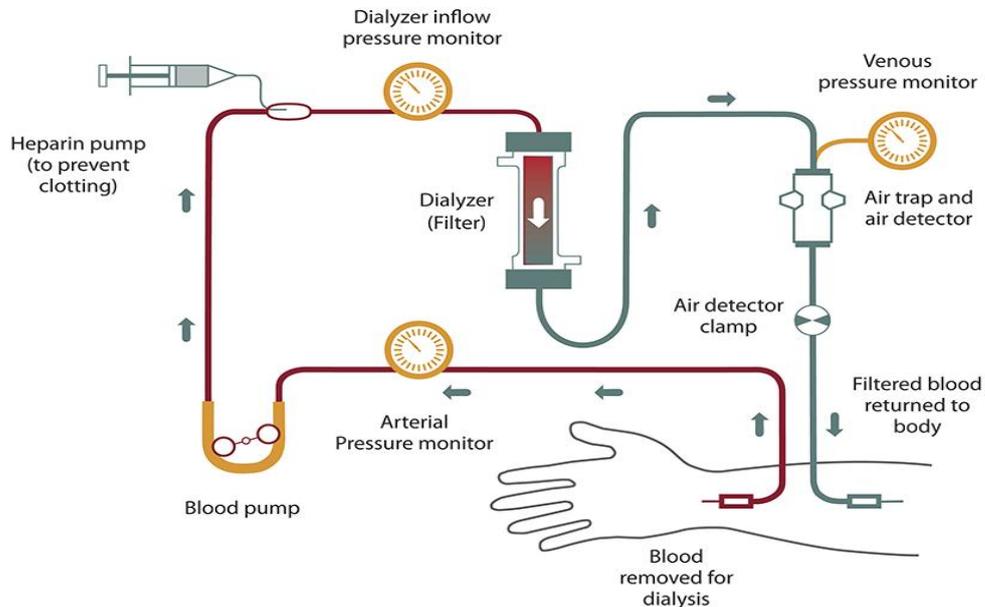


Figure 1: Haemodialysis process.

Figure: 1 citation

(https://www.google.com/search?q=haemodialysis+process&rlz=1C1CHBF_enIN860IN860&source=lnms&tbm=isch&sa=X&ved=2ahUKEwjA3Ka327zpAhVq8HMBHSFMDZEQ_AUoAnoECBIQBA&biw=1366&bih=657#imgrc=ETVZ31xyZVdwzM)

The excess water and wastes are removed during haemodialysis by using an external filter called dialyzer. This consists of a semi permeable membrane. The segregation of waste materials is done by generating a counter current flow gradient, in which blood flow is in one direction and fluid of the dialyzer in opposite direction.

Aims of patient education

Patients with chronic kidney disease requires comprehend treatment regimens which includes monitoring BP, blood glucose, adopting lifestyle changing measures, maintaining physical activity and in bond with complex drug regimen.^[5] So the patient education aims includes:

1. Patients with chronic kidney disease should aware of their condition and have fine knowledge on self governance. Research shows that patient understanding on chronic kidney disease can boost outcomes.^[6]

2. Nevertheless the incident dialysis patients who were ignorant of their chronic co morbid conditions had increased mortality risk compared to those who were aware of their co morbidities. Such circumstances manifest necessity for patient education.^[7]
3. CKD education may strengthen the impersonal and perceived kidney disease knowledge among patients.^[8]
4. CKD patients education programme may carry over dialysis initiation, widens survival on dialysis and reinforce overall concerns of good health.^[9]

Significance of CKD education and educational tools

There exists a misconception in patients and general public owing to poor or outdated guidance. The patient perception of his or her health problem can permute clinical outcome.^[10] There are good grounds for hope to infer that functional participation in decision making may increase the effectiveness of therapy. Patient education is not the only medium through which patients can have their arguments, concerns and desire regarding kidney disease care are communicated, but it is pivotal mechanism to make sure that patients can be taught to engage in self governance of their CKD risks.^[11] The judicious selection of diet and fluid management can alter treatment success. Information's concerning fluid management, dietary measures given in printed materials can sustain the knowledge of patients compared to verbal informations.^[12] Chronic kidney disease patients follow assimilating complex treatment regimen, so there is an utmost need of patients to be known with their conditions and pursue self-care measures. A validated patient information material can serve as a unique guide for the patient in his or her disease managements.^[13] The printed informations build up much attention in patient attendants who are actively participating in patient care. National programs and CKD care guidelines recommend patient education as critical component of care.^[14]

Designing a new patient information material

- The same tactics that can be used to simplify former patient education tools can also be used while developing newer ones
- Developing new tools for patient education should impart something indeed purposeful for patients. Furthermore the education can be tailored to the particulars of discrete dialysis centers. For example if certain medication used in treating hyperphosphatemia is not normally prescribed in a clinic then it should not be incorporated in the prospectus of that clinic.

- A top-notch approach is to inspect the patients what they need to know rather than what is pleasant to know
- The setting up of blank pages on patient information materials can aid the patients to customize the patient information materials for recording their laboratory values, medication dosages, blood pressure readings, dry weight etc.
- A space for recording current dose of medication is also beneficial
- A table assembled with dates and laboratory parameters can assist patients to sense their progress
- The personalization of information materials can uplift the patients for using such materials.^[15]

Determining readability

It is necessary to determine the readability of a patient information material, preferably this inquiry is done during development of new information materials; however, it can also be done retrospectively for existing materials.^[16] There are over 40 distinct formulas for detect readability. One of the most common and easiest is SMOG formula which was developed by McLaughlin in 1969 and has been used for more than 30 years. The process for using SMOG formula is as follows

1. Pick 10 sentences in a row at the beginning, middle and end of the document (a total of 30 sentences)
2. Count every word in the sentences that has three or more syllables. Read words aloud to determine the number of syllables. Words that repeat count each time they appear. Proper nouns and hyphenated words of more than three syllables count also. Abbreviations are counted as whole word they represent.
3. Figure the square root of the total number of words with three or more syllables.
4. Add three to the square root. This is the grade-level of the document. Example: your 30 sentences have 55 words with three or more syllables. The square root of 55 is 7.4. add 3 to 7.4 to get 10.4 which is the grade-level of the document

Note: adapted from McLaughlin.G.H (1969) SMOG grading – A new readability Formula, journal of reading, 12,639-646

The determination of readability is essential for assessing a patient information material, as it may influence patient adherence.

Obstacles to patient education

Obstacles include complexity in the kidney disease information, low baseline knowledge, poor health literacy and numeracy, low accessibility of CKD informations, lack of inclination to learn.^[17] For providers, scarcity of time, confusions about diagnosing CKD to limit educational efforts, lack of confidence merge with competing educational primacy.^[18] At system level, lack of incentives to the providers, lack of practical decision support tools and integrative care models inhibit patient education.^[19] The hindrance in providing patient awareness contrarily effect patient care in CKD patients. However the emerging attentiveness in improving patient oriented outcomes may contribute a new outlook for effective education of chronic kidney disease patients.

Strategies to improve patient knowledge

Take benefit of technology

Technology has converted patient education material easier and approachable. Educational materials can be personalized to improve its active usage, ensure that patient's individual needs are addressed.^[20] Don't simply handover a small piece of paper with written informations to read. Make sure the patient understanding on them. And answer the queries raised by them.

Discover patient's learning style

Similar instructions can be given by distinct ways. Providing information using different modalities emphasize teaching. Patients have different learning styles; determine weather your patient learns best by reading or by any other visual aids. An approach of patient gets to perform a procedure with your guidance is often a premier method.^[21]

Encourage patient's interest

It is essential to consider patient specific concerns, as some people wants intense information's while some category requires very less about the facts and do better with simple checklist. Ensure the patient understanding of why this is important in patient care. Establish the accord of patients, also ask and answer queries.^[22]

Appraise the patient's constraints and strengths

The patients with impaired physical, mental and emotional states impact the learning ability. Such instances require modalities in providing information's. For example visual aids serve as an important tool for deaf peoples. Large printed materials are required for patients with

visual problems. Determine the patient understanding. Always patients will interpret yes or say they apprehend what is taught if they have not understood or heard properly. Also consider factors such as debility and revelation of learning a censorious diagnosis when educating patients.^[23]

Inspiration from family members

Including family members in patient care can improve the practice of following the instructions especially those who influence much in a patient's life. Families contribute an important role in patient's health care management. In many instances we have to provide instructions with family members and require support to assist patients.^[24]

Recent advancements in patient education tools

Patient education materials comprise of printed materials like leaflets, pamphlets, brochures, booklets, medication cards etc. It may also include audios, videos and computer based informations.^[25] Recently these were notably increased. The mass media may also play an important role in patient education. This may create an impulse for patients to follow the instructions provided by their health care providers. The advancements in patient education materials have shown improved readability in patients. A challenging fact is most are based on theoretical considerations rather than evidence based approach.^[26] No transparent predispositions are recognized amongst patients about these materials. In point of fact people are prerequisite with informations rather than media. Educational materials must contain well grounded informations designed in a form that is sustainable and beneficial for patients.^[27]

CONCLUSION

In CKD patients, dialysis is the prime method to remove accumulated toxins from the body and refine quality of life. Recently the health care providers are facing challenges in delivering health care and education to the patients. Obstacles that avert the contented delivery of healthcare informations include literacy, culture, language and also certain physiological barriers. There is a desperate need to educate CKD patients about the facts concerned with disease, medications, lifestyle, and dietary measures and to adopt various measures to manage the condition and lead a fruitful life.

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Conflict of interest

There is no conflict of interest.

Abbreviations

CKD: Chronic kidney disease, **BP:** Blood pressure.

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