Effective Doctor-Patient Communication

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The purposes of an effective doctor-patient communication include creating a good interpersonal relationship, exchanging information and making treatment-related decisions. According to Roter and Hall "talk is the main ingredient in medical care and it is the fundamental instrument by which the doctor-patient relationship is crafted and by which therapeutic goals are achieved." It is a prerequisite for optimal medical care (21).

The average length of a medical encounter is 12.35 minutes (25). This makes doctors much less available for conversation (1). In an encounter, patients usually offer 40% of the dialogue while doctors offer 60%. Patients spend 47% of their interaction giving information, and only 7% asking questions. The doctor spends 35% of the time giving information and 23% of the time seeking information by asking questions (25). Doctors are not very perceptive in estimating the amount of time information is desired or given. Doctors estimate they spend 6.8 times more giving information than they actually do. They underestimate a patient's desire for information 65% of the time (21, 34). Doctors often feel that a sufficient amount of relevant information is given while the patient feels that they have learned nothing new (21). In compounding matters, patients usually take a passive role in

acquiring information. Patients ask questions approximately 4-6% of the time, but feel they are not given enough information 70% of the time (24, 32). Questions are not asked for a variety of reasons such as a fear of offending, not being given a proper opportunity, not knowing the appropriate questions, wanting to avoid embarrassment, and being intimidated by authority (32).

SOCIOECONOMIC FACTORS

A successful clinical relationship requires close cooperation between the doctor and patient (21).

Socioeconomic and personality variables will affect communication. It is the challenge of the doctor to determine and meet each patient's individual needs, and the challenge of the patient to communicate expectations and actively seek satisfaction (21).

Certain groups of patients are less likely to ask questions of their health care practitioners. For example, older individuals are less likely to question the doctor's authority, suggest alternative treatments, or take an active role in medical decision making (9). Members of the working class (non-executives) often ask fewer questions because they feel they are not expected to ask questions. There may be a language barrier. They also feel in awe of the doctor and feel a social distance. The doctors assume that these

patients are not asking questions because they do not have a desire for knowledge (34).

The amount of information patients receive is dependent on many variables. The communication style, amount of questions asked, concerns expressed, race, sex, age and socioeconomic status all play roles (34, 21, 9). In general, whites receive more information, more positive talk and are asked fewer questions than non-whites. Working class individuals receive less information than higher social classes (25). More information is generally given to older individuals, women, college-educated people, corporate and middle-class workers, individuals with unfavorable prognoses, and those who are acquainted with the doctor longer (34). Despite these differences, the desire for information in all social classes, ages, and sexes is consistently the same (25, 34).

Women as patients interact differently from men. They maintain a stronger sense of patients' rights including the right to express their opinions, be treated with respect and be taken seriously (24). They tend to ask questions more frequently, engage in more active talk, and are more anxious and interested (24, 8). Women offer more positive statements, but also disagree more often. They tend to prefer a more feeling-oriented doctor. A flaw of the female patient is that she does not express feelings of dissatisfaction as well (8).

Doctors also interact differently with female patients. They often presume that the female patient is more knowledgeable, thus use more medical jargon. They speak in calmer tones, provide more empathy and leave the room less frequently. Doctors more frequently underestimate a female patient's desire for information and do not pick up cues of satisfaction as readily (8).

The doctor's sex and background also has an effect on communication. Female doctors are more likely to spend time with patients, allow the patients to talk, use positive tones, make feeling oriented statements, ask questions, make partnership statements, smile, and use verbal facilitation (8). Less experienced or lower income liberal doctors who come from corporate or upper-middle class backgrounds tend to spend more time with patients (25, 34).

INSTRUMENTAL AND AFFECTIVE INTERACTIONS

Doctor-patient interactions consist of two integrated components. The first is instrumental (task-focused) and the second is affective (socio-emotional). The instrumental component responds to cognitive needs. It addresses the patient's need to know and understand. It also involves the doctor's technical skills used in problem solving and includes giving information, asking questions, counseling, giving directions, identifying future treatments or tests, and

discussing side effects and test results. At the heart of the relationship, the doctor must be competent. The proper clinical reasoning, interpersonal skills and medical knowledge must be present (10). This includes tactic knowledge or common sense. A clinician must be able to adapt and conform to new and changing situations. It is necessary for success because it involves judgment and wise actions in complex situations (21). If the patient does not perceive the doctor as competent, the relationship will suffer.

Affective interactions are socio-emotionally based and concern the need to feel known and understood. It is conveyed in voice quality, treating the patient as a person, and establishing a positive relationship. Examples of affective interactions include being encouraging, friendly, showing concern, giving reassurance, showing approval, addressing the patient by their first name, and providing verbal support. Addressing the patient by name is the most common strategy and is used about 71 % of the time (21). Good manners, giving the patient compliments, conveying interest, having a desire to help, and being non-judgmental are all required. It is the communication between the two people that sustains the working relationship with trust, empathy, respect and unconditional acceptance. Clinicians can achieve empathy by eliciting patient feelings, paraphrasing, using silence, and listening to the patient (21).

Finding the right balance of components is the key for each successful doctor-patient interaction (21). Most patients judge competence by the technical behavior and the interpersonal skills of the clinician (10).

MEDICAL DECISION MAKING

In the paternalistic form of interaction, a doctor's control of information allows them to maintain dominance while the patient becomes a subordinate. These doctors worry that if their decisions are up for discussion, they must be justified to patients. Because of the uncertainty of many outcomes, they are less likely to reveal information (34). This control is maintained by frequent interruptions, allowing few opportunities for the patient to speak, verbal exaggeration, dramatization, hand gestures and argumentative statements (21). Although the paternalistic pattern usually leads to decreased patient compliance and satisfaction, 71 % of doctors are reluctant to have the patient enter the decision-making process and would rather maintain control (21, 4).

Doctors today are becoming more tolerant of patient participation and many will share the power of information with patients (25, 21). Surprisingly, doctors will often relinquish control if the patient exhibits a desire for it. When patients showed assertive patterns, doctors will allow them to take control. Doctors that display a neutral stance

are twice as likely to have patients who will take control (4). A patient's increased sense of control leads to a better sense of patient well being with better health outcomes (26).

There is a large shift toward "shared decision making."

The doctor and the patient are equal partners in this relationship (21). Relevant information regarding the clinical situation, alternatives and risks and benefits must be given. A patient's understanding must be assessed and the patient must be given an opportunity to voice preferences.

These factors are all necessary for an effective treatment to be negotiated and for informed consent (3). Patients who take an active role in their medical decision-making have better satisfaction, quality of life and biological outcomes (12).

Doctors have the training, knowledge and experience to make treatment recommendations, but the values, goals, and cultural beliefs can be brought into a decision by the patient, family and close friends (29). A danger to the patient assuming a large role is that they will also assume the responsibility in the event of a poor outcome. Complete control of any decisions is still not entirely delegated to the patient. The majority of patients wants sufficient information and options, but leave the final decision to the doctor (21).

A relatively recent phenomenon is the emergence of the medical consumer. It urges the protection and promotion of

the patient as a consumer (1). The patient assumes more bargaining power by listening to the thoughts of one or several medical providers and ultimately makes their own informed decisions (2). Patients are learning to challenge the authority of the doctor and ask questions about their conditions (25). The shift is toward a more patient-centered system in which the relationship is egalitarian. The doctor enables the patient to express their feelings, thoughts and expectations regarding the visit. The doctor follows the patients' lead and tries to understand their point of view (21). The best medical encounter allows the patient to guide when symptoms, preferences and concerns are analyzed, and the doctor to take control when the details of the disease and treatment are concerned (21).

DOCTOR-PATIENT INTERACTION

The interaction between the doctor and the patient is most effective when the format is structured. The patient is told what will happen next and is provided an explicit outline of the visit (36). Basic structural elements include preparing oneself to listen and attend, preparing the environment, greeting the patient, opening with introductions of yourself and your purpose, surveying problems, training the patient, elaborating the information about problems, the physical exam itself, summarizing, and closing. The outcomes of the

interview include accuracy and completeness of the information, the patient's biological outcomes, patient satisfaction, clinical satisfaction, compliance, and efficiency (12).

The doctor-patient interaction serves many functions. The first is determining and monitoring the patient's problems and gathering data relevant to the care. This includes finding information about the problem, associated disease processes and disorders, psychological and social factors. The second is to develop and maintain a close therapeutic relationship with the patient by defining the nature of the relationship, communicating competence as a clinician, showing interest and respect, support and empathy. The patient's and family members' perspectives must be elicited. Finally, patient education must be carried out and a treatment plan must be implemented. Areas of conflict should be determined and solutions negotiated. Diagnostic importance should be communicated, appropriate procedures recommended and treatments explained. Preventative measures and lifestyle changes should be elicited. The coping ability of the patient should be analyzed by working with the social and psychological realities facing the patient and family (12).

One of the most importance aspects of the doctor-patient interaction is closure. It is defined as "the phase of the medical encounter after the education and information exchange

in which the doctor and patient finalize plans and say goodbye." A change in the voice tone, pitch and volume can be detected and can be non-verbal, such as tapping a pen, or closing a chart to initiate its start. Closure has three basic purposes: helping the patient understand the diagnosis, treatment, and plans for the future. It summarizes the visit, clarifies the course of treatment, confirms patient understanding, establishes interim contact and demonstrates caring (36).

The impact of an effective closure is significant. It can increase the patient's satisfaction with the care, compliance and the outcome of the illness. The last comments made are often the ones that patients remember the easiest, so they should be structured and flow well. An effective closure will not include any new educational material, which makes it awkward and inefficient. It frustrates the doctor and decreases patient's satisfaction. It is effective to use terms like "we" and "let's" to make the patient feel a part of the decision-making (36). It allows for patient participation, makes the treatment plan more effective, leads the patient to ask more questions and allows patients to take more responsibility for their own care (12). Relating to the patient on a personal level will strengthen the relationship to enhance compliance and improve the health outcome (36).

INFORMED CONSENT

An importance aspect of patient education is informed consent. It is the burden of the clinician "to provide the patient with the opportunity to make educated choices, allow self-determination and maximize the likelihood that decisions are in the patient's best interest." It requires that patients know and understand the pertinent information to make a choice with voluntary consent. The rationale, major risks and benefits and alternative treatment options should be offered in this order. It can be written or oral and is legally and ethically needed for all procedures on competent adults (37). The ethical function allows patients to make informed decisions in an autonomous manner (3).

Almost every clinical decision including medications, lab tests and imaging studies require some level of discussion (3). The prescriptions of toxic medications or diagnostic procedures that may be expensive or invasive require extensive discussion (3). One of every ten side effects is not detected because the patients are not aware they may experience them (1).

The responsibility of informed consent without patient solicitation is not just ethical, but also legal. In Canterbury vs. Spense, it is found that "the physician's duty to inform [the] patient is not dependent on [the] patient's request for disclosure." Signatures are often substituted for

informed consent (37). Doctors and patients rarely concur on what was discussed regarding risks and alternatives. Rarely does the clinician communicate all aspects and patient recall and comprehension are limited (37).

A study of achieving the criteria of informed consent reveals that it is infrequently accomplished. Not enough information is being communicated to patients on a routine basis. Doctors have pressures to decrease costs and see more patients, decreasing the time spent with each patient. The educational portion of the exam will usually suffer first (3).

There are strategies to increase the proportion of patients receiving proper informed consent. Support staff should be used, so more time can be spent with each patient at a lower cost. Interactive technology and other health care providers can provide additional information to patients (3). Doctors can receive more education in the areas of bioethics, communication skills and patient interaction (37). Views regarding informed consent should be expanded so that even routine decisions involve discussion and share of decision making (3).

RECALL OF INFORMATION

The patient's ability to recall medical information is important to the treatment plan and prognosis of a condition. In studies, from 7-47% of patients did not understand

information about their diagnosis and 13-53% did not understand their prognosis. Several factors affect understanding. Close physical proximity, leaning forward, spending more time and giving more information will increase recall. Touching on the hand (considered an invasion of privacy) and increased time in chart review (decreases eye contact) decrease recall. The theories of primacy (information given first) and recency (information given last) can be used in improving recall. The most important information should be given first, as it will be remembered the easiest. If the diagnosis is upsetting, realize that little information will be remembered following this disclosure due to feelings of anxiety, uncertainty and depression (21).

SATISFACTION

Satisfaction is a crucial element of the patient encounter namely because it leads to an increase in patient compliance. Satisfaction is defined as "when one gets what is expected leading to a positive word of mouth and loyalty".

Dissatisfaction, therefore results when expectations are not met (11). These expectations include perceived quality, or evaluation of a clinician's overall excellence, attitudes and behavioral intention (7).

Satisfaction can be increased in various ways. Patients are generally more satisfied when more information is given, more time is spent, affective behavior is expressed, the first name is used, doctors sit during interviews, there are no interruptions, the care is patient-centered, thoughts can be made freely, and non-verbal communication is used (most importantly) (21). Specifically regarding the communication, more social conversation, emotionally concerned talk and global interest and responsiveness increases patient satisfaction (8).

Dissatisfaction results when the information patients receive are not completely understood or remembered (22) and not comprehensive enough (21). In fact, the only things that dissatisfied patients more than the information they received was the cost of medical care and waiting time (34). Satisfaction decreased when more time is spent reviewing the medical chart, doctors had controlling styles and patients were touched (21).

COMPLIANCE

Compliance is one of the ultimate goals of the doctorpatient encounter. It can measure the effectiveness of the doctor-patient communication, since patients who misunderstand their condition and treatment plan will demonstrate poorer compliance (14). It is a close predictor of the outcome of a condition (a consequence of activity occurring after an encounter) (21). It is found that 50% of patients do not follow even the simplest instructions. Compliance actually decreases when more instructions are given and more medical jargon is used (22). There are four conditions of compliance: the patient must understand the instructions, be mentally and-physically able to comply, believe that the treatment plan is compatible with their own personal interest and feel that it is consistent with the purpose of their overcall system (32). Giving information, allowing more questions, conducting a patient-centered exam and decreasing negative talk increases compliance (21). Better understanding and a close, trusting relationship creates a better environment for compliance (32).

To be fully compliant, a patient must undergo some behavioral stages. During pre-contemplation, the patient has not considered changing the behavior, but has considered it a problem. In the action phase, the patient experiments with the change and doing things differently. Maintenance is when the change endures and becomes integrated into the lifestyle. Termination results when the change is fully integrated. Relapse occurs when the negative behavior becomes reestablished. The educational needs of the patient change depending on the stage of behavioral adaptation (12). The doctor needs to assess and discuss the patient's feelings, hopes and expectations. The patient may need to practice

through repetition the target behavior. The patient plans and copes with new ways to integrate the target behavior. Finally, social support is important from family, friends and the doctor to reinforce the behavior (12, 14).

IMPROVING PATIENT COMMUNICATION

There are many ways for doctors to improve their communication and educational skills. Doctors should learn to listen to patients, be friendly, discover what the patient wants, expects and believes, avoid medical jargon, use short words and sentences, encourage feedback and questions, provide written back-up, conduct a careful interview and individualize instructions (22). They should provide a rationale and specific instructions to facilitate change (27).

Medications including mode of action and side effects should be discussed. They can be advised to question the pharmacist for the detailed package insert or for a printout of information regarding the medication.

Training doctors in communication skills produces greater sensitivity to patient satisfaction (especially towards women patients) which leads to greater patient compliance (8). Most doctors give too much information that is also too complex (14). It is important to speak simply and repeat important information (14). Training clinicians to have a five-minute concluding statement that summarizes the visit and requests

feedback also increases patient satisfaction and recall of information. When communication skills are taught to medical students, many of the techniques are still in practice five years later. The diagnostic information patients receive prove to be superior than when the methods are not used (25).

Involving family or companions can also help convey information (12). Companions can become pivotal individuals in conveying the message from doctor to patient (or vice versa). They help improve patient compliance and allow more opportunity for the information to be assimilated (9).

Working directly with a health educator prior to a medical visit can improve a patient's understanding.

Questions can be articulated, decisions negotiated and medical records reviewed. Patients who work with a health educator ask twice as many questions during the exam as compared to controls. They are more verbally active, make more controlling statements, elicit more information, and are more engaging (25).

Most patients recall less than half of the information spoken to them by the doctor, and even less if the information elicits strong emotions, such as anxiety (5). Providing an educational leaflet has been found to dramatically increase the effectiveness of treatment plans (12). Written materials should reinforce and extend the message sent verbally by clinicians (16, 14). Combining oral instructions with short

and simple written materials is the most effective way to enhance patient understanding and satisfaction (14). Medical information that is too complex can cause patients to be overwhelmed and confused. As a result, patients will make poorer decisions and more errors in taking medications (6).

The average reading level of most written information material is at grade 10. The reading levels of a sample patient population are approximately two grades lower than the last grade completed (16, 15). A national literacy survey finds that the average reading level of American adults is grade eight or less and that "47% of American adults (90 million) have low literacy skills" (28, 14). If materials are made easier to read, comprehension will improve. In one study, adults from all socioeconomic and reading levels prefer a sixth-grade level pamphlet over a tenth-grade level pamphlet and "no one was offended by its simplicity" (14). Development of these materials at appropriate reading levels with proper format and visual appeal will increase patient interest and motivation (16). The National Council on Patient Information and Education (NCPIE) has developed an Action Plan to encourage American health care professionals to voluntary provide written information to patients on any prescribed medications. The goal is 75% of the patients by the year 2000 and 95% of the patients by the year 2006 (28, 13).

The most effective form of printed material are those that can be comprehended easily by the target population (15, 33). There are many ways to improve the effectiveness of written materials. Write with a fifth-grade to seventh-grade reading level (5). To improve clarity, use both uppercase and lowercase letters. Use one or two syllable words in short sentences (8-10 words) with an easy to read type style. Emphasize the materials with arrows, underlines, and bullets. Avoid italics and abbreviations. Patients prefer short, simple, and colorful materials (14). Computer software programs are also available to customize information for each patient (5).

Individuals with a less than fifth grade reading ability are considered illiterate and written reading materials may not be beneficial to them. One fourth of the US population is considered functionally illiterate and one-half of the US population is considered marginally literate (35, 13). These patients are better served with alternatives such as flip charts, videotapes, audiotapes, picture books and computerassisted instruction (15).

There are methods for the patient to become a better consumer. The public is better informed on medical advances today through education by television, radio, magazine and medical books written for lay people (1). Patients should question the providers' information, choose competent pharmacists and

clinicians with open communicative styles, and have some knowledge of the condition before the appointment with the doctor (24).

VOCABULARY

Vocabulary is an essential component of the communication process. Doctors essentially speak two languages: medical language (ML) and everyday language (EL). Doctors are often under the impression they are switching to everyday language when having discussions, but patients often disagree. In response, patients will try to switch to medical language. The use of medical language is often a source of frustration for patients. The percentage of patients understanding common medical terms is 36%, because there may be different clinical and lay meanings. The use of medical language can lead to patient dissatisfaction and non-compliance with the presented medical treatments (21).

RESULTS OF EFFECTIVE COMMUNICATION

The results of effective communication in the doctorpatient relationship are tremendous. It has been commented
that significant improvements in health care no longer come
form technological breakthrough, but from interpersonal
changes (the way we participate in our health care) (24). It
can influence patient behavior and a sense of well-being, the

ability to give a complete history, satisfaction with care, adherence to treatment, recall and understanding of medical information, the rate at which symptoms and side effects are reported, and ability to cope with a disease (21, 34). A doctor who encourages self-confidence, motivation and positive attitudes directly improves the outcome (21).

- 1. A Prescription for Drugs. The Economist, Feb. 1991. 14-15.
- Beisecker AE. Aging and the Desire for Information and Input in Medical Decisions: Patient Consumerism in Medical Encounters. The Gerontologist, 1988. 28:330-335.
- Braddock CH. et al. How Doctors and Patients Discuss Routine Clinical Decisions: Informed Decision Making in the Outpatient Setting. Journal of General Internal Medicine, 1997. 12-6:339-345.
- 4. Cecil DW. Killeen I. Control, Compliance, and Satisfaction in the Family Practice Encounter. Family Medicine, 1997. 29-9:653-657.
- 5. Deye DL. et al. How Computers Enrich Patient Education. Patient Care, 1997. 31-3:88-90.
- 6. Drug Information Can Be Confusing. USA Today, 1995. 123-2597:10-12.
- 7. Gotlieb JB. Grewal D. Brown SW. Consumer Satisfaction and Perceived Quality: Complementary or Divergent Constructs? Journal of Applied Psychology, 1994. 79:875-885.
- Hall JA. Roter DL. Patient Gender and Communication With Physicians: Results of a Community-Based Study, 1995. 1-1:77-95.
- 9. Hawkins C. Changing Doctor-Patient Relationships. Contemporary Review, 1989. 255:183-190.
- 10. Hewson, MG. et al. Strategies for Managing Uncertainty and Complexity. Journal of General Internal Medicine, 1996. 11-8:481-485.
- 11. Hunt HK. Consumer Satisfaction, Dissatisfaction, and Complaining Behavior. The Journal of Social Issues, 1991. 47:107-117.
- 12. Lipkin, Jr. M. Patient Education and Counseling in the Context of Modern Patient-Physician-Family Communication. Patient Education and Counseling, 1996. 27:5-11.
- 13. Marwick C. Encouraging Trend on Prescription Drug Information. The Journal of the American Medical Association, 1997. 277-22:1746-1752.
- 14. Mayeaux, Jr. EJ. et al. Improving Patient Education for Patients with Low Literacy Skills. American Family Physician, 1996. 53-1:205-207.
- 15. Meade, CD. Byrd JC. Patient Literacy and the Readability of Smoking Education Literature. American Journal of Public Health, 1989. 79:204-206.
- 16. Meade CD. Byrd JC. Lee M. Improving Patient Comprehension of Literature on Smoking. American Journal of Public Health, 1989. 79:1411-1412.

- 17. Messner RL. Patient Teaching Tips From the Horse's Mouth. RN, 1997. 60-8:29-32.
- 18. Morris LA. Grossman R. Barkdoll GL. A Survey of Patient Sources of Prescription Drug Information. American Journal of Public Health, 1984. 74:1161-1162.
- 19. Morris LA. Olins NJ. Utility of Drug Leaflets for Elderly Consumers. American Journal of Public Health, 1984. 74:157-158.
- 20. Murphy PW. Davis TC. When Low Literacy Blocks Compliance. RN, 1997. 60-10:58-63.
- 21. Ong LML. et al. Doctor-Patient Communication: A Review of the Literature. Social Science & Medicine, 1995. 40:903-915.
- 22. Phillips, GM. Jones JA. Medical Compliance: Patient or Physician Responsibility? The American Behavioral Scientist, 1991. 34: 757-767.
- 23. Reed A. Simple Strategies That Improve Compliance. RN, 1997. 60-9:35-38.
- 24. Rogers, PG. Improving Communication Between Women and Health Care Providers. *Public Health Reports Supplement*. 1986. July-August:141-142.
- 25. Roter DL. Hall JA. Katz NR. Patient-Physician Communication: A Descriptive Summary of the Literature. Patient Education and Counseling, 1988. 12:99-119.
- 26. Rubin FH. Black JS. Health Care and Consumer Control: Pittsburgh's Town Meeting for Seniors. The Gerontologist, 1992. 32:438-443.
- 27. Russell NK. Roter DL. Health Promotion Counseling of Chronic-Disease Patients During Primary Care Visits.

 American Journal of Public Health, 1993. 83:979-982.
- 28. Sasich LD. et al. The National Council on Patient Information and Education. The Journal of the American Medical Association, 1997. 278-18:1491-1492.
- 29. Singer GR. Koch KA. Communicating With Our Patients: The Goal of Bioethics. The Journal of the Florida Medical Association, 1997. 84-8:486-487.
- 30. Smalley R. Patient Education: We Have a Better System Now. RN, 1997. 60-6:19-23.
- 31. Society for the Advancement of Education. Communications Skills Cut Malpractice Risk. USA Today, 1997. 126-2629:2-12.
- 32. Trinkaus J. Medications and Information for Patients: A Quick Look. Psychological Reports, 1991. 68:911-914.
- 33. Turner LJ. Putting Patient Education on a New Path. RN, 1995. 58-9:42-45.
- 34. Waitzkin H. Information Giving in Medical Care. Journal of Health and Social Behavior, 1985. 26:81-101.

- 35. Weiss BD. Coyne C. Communicating with Patients Who Cannot Read. The New England Journal of Medicine, 1997. 337-4:272-273.
- 36. White JC. et al. Wrapping Things Up: A Qualitative Analysis of the Closing Moments of the Medical Visit. Patient Education and Counseling, 1997. 30:155-165.
- 37. Wu WC. Pearlman RA. Consent in Medical Decision Making: The Role of Communication. *Journal of General Internal Medicine*, 1988. 3:9-14.

Glaucoma occurs when your eye pressure is high enough to damage the nerve tissues inside your eye (optic nerve). It is usually painless but can lead to blindness. Glaucoma first affects your side vision (visual field) and then slowly reduces your central vision. Although glaucoma is usually a lifelong disease, it can be treated with eye drops most of the time. In some cases, surgery may be needed. At the Michigan College of Optometry, we diagnose and then monitor glaucoma by evaluating your eye pressures, optic nerves, and visual fields. It is important to keep all your follow-up appointments as we strive to preserve your vision.

Myopia is the medical term for near-sightedness. Objects may be clear up close, yet are blurry far away. Myopia occurs when the shape of your eye does not allow images to focus clearly on the back of your eye (retina). Instead, your eyes focus images at a point in front of the retina. Myopia can be corrected with eyeglasses, contact lenses, and sometimes surgery. At the Michigan College of Optometry, we will always strive to keep your vision clear.

Hyperopia is the medical term for far-sightedness. While objects may seem clear far away, you may experience blur, eyestrain, and/or headaches when trying to read up close. Hyperopia occurs when the shape of your eye does not allow images to focus clearly on the back of your eye (retina). Instead, your eyes focus images at a point behind the retina. Hyperopia can be corrected with eyeglasses, contact lenses, and sometimes surgery. At the Michigan College of Optometry, we will always strive to keep your vision clear.

Presbyopia usually starts in the early to middle forties and usually affects everyone after the age of 50. You may find it hard to do near work such as when reading. This occurs because the lens in your eye (responsible for focusing) becomes less flexible as you get older. Presbyopia can be corrected with glasses or contact lenses. There are many eyeglass options to correct presbyopia such as reading glasses, bifocals, trifocals, and progressive lenses. Contact lens options include monovision and multifocals. At the Michigan College of Optometry, we take pride in choosing the correct eyewear for your vision needs.

Astigmatism occurs when the shape of your eye does not allow images to focus clearly on the back of your eye (retina). Your cornea (the front of your eye) is not completely round, like a basketball, but shaped more like a football. This causes images to focus at different points in your eye. Astigmatism can be corrected with eyeglasses, contact lenses, and sometimes surgery. At the Michigan College of Optometry, we will always strive to keep your vision clear.

Age-related macular degeneration (ARMD) is a leading cause of vision loss in people over age 60. It mainly affects your macula, the area in your eye that is responsible for central vision. You may notice a blind spot in the center of your vision. Sometimes straight lines may appear wavy and your vision may be distorted and/or blurred. You may find it harder to read, recognize faces, and perform activities that require your central vision. At the Michigan College of Optometry, we have many special vision aids that may help you in your daily activities. These include magnifiers and telescopes. Your eyes will be monitored with dilated examinations. We may also send home an Amsler Grid Test for you to monitor your vision. In some cases, laser surgery may be necessary.

Eye Infection Medication

The following medication(s) is/are prescribed to you for an eye infection. It is important to use the medication(s) as directed and for the stated length of time, even if your eye(s) start to feel better. Please throw out any remaining medication(s) after this period. Do not save extra medications(s) for another time nor pass the medication(s) to anyone else.

Eye Drop(s):	both eyes	right e	ye left e	ye
1		drop(s) every _	hour(s) for	day(s)
		drop(s)	times a day for	day(s)
2	П	drop(s) every	hour(s) for	day(s)
		drop(s)	times a day for	day(s)
touch any surface. pocket. Carefully s your eye(s) and was put more than one of	Tilt your head back squeeze one drop into it 3 minutes. Please drop in the same eye. or burning sensation	and gently pull do the eye. If necess wait three minutes Please note that so	wn on your lower lie ary, repeat for the o between drops if yo	d to create a ther eye. Close ou are directed to
Ointment:	both eyes	right ey	e left ey	ve
1	Annua Sanua Sa	inch into lower eye	elid times a da	y for day(s)
the tip of your finge pocket. Carefully d Please note that son	ns: Unscrew the bother. With the other had leposit the ointment in medications may any experience some	nd, gently pull dovinto this pocket. Cause a temporary	vn on your lower lic lose your eyes for th stinging or burning	I to create a nree minutes. sensation. With
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are healing and the task of keeping you	ep all your follow-up medication(s) are wo r eyes healthy is imp please do not hesitate at	orking well. At the ortant to us. If you	Michigan College of have any questions	of Optometry, the s about your eyes
Patient Name		Practitioner N	ame	Date