



Enhancing Patient Adherence with Oral Anticancer Therapies

Pharmaceutical Call Centers Empower Patient Support Programs



Table of Contents

Oral anticancer treatments offer advances and new challenges	3
Importance of patient adherence	4
Factors contributing to patient non-adherence	4
Enhancing patient adherence.....	5
The role of life sciences companies in supporting patient adherence	6
Developing successful patient support programs	7
Patients want personalized experiences	7
Case Study: Patient and caregiver support programs in oncology provided by Tunstall Healthcare.....	9
Closing thoughts	11
Solutions from Tunstall Healthcare Group	11
References.....	11

Oral anticancer treatments offer advances and new challenges

The use of targeted oral anticancer treatments is becoming increasingly prevalent in cancer care and it is expected to continue. Approximately 25 to 30% of the oncology drug pipeline involves oral agents¹. There are now more than 50 oral anticancer treatments approved by the Food and Drug Administration¹.

The increased use of oral anticancer treatments represents a major shift in how patients with cancer are managed. Historically patients with cancer were treated with intermittent intravenous therapy in a physician's office or medical center under the direct care of a healthcare professional. New oral anticancer treatments are self-administered oral therapies. While oral therapies are much more convenient for patients, patient adherence is a critical issue that has been shown to have negative consequences on patient outcomes. The issue of non-adherence with oral chemotherapeutic agents has been cited by the World Health Organization as the single most important yet modifiable factor that can compromise treatment outcomes².

This paradigm shift affects how healthcare providers will manage their patient's treatment and side effects, and they need resources that will assist them in promoting the importance of adherence to oral regimens and how this relates to improved patient outcomes. In a quantitative review of 50 years of research related to a variety of diseases, DiMatteo found that medication adherence is approximately 24.8%³. The Oncology Nursing Society website reports that recent Seminars in Oncology Nursing articles showed adherence rates ranging between 20%-100%. The wide variation in results may be attributed to there not being a consistent definition of adherence that was used in all of these articles².

The issue of patient adherence to oral anticancer therapies is an important one as in many cases cancer is becoming a chronic disease that is treated over prolonged periods of time⁴. Patient adherence to treatment dosing and schedules is critically important in order to maximize patient outcomes.

Importance of patient adherence

Patient over-adherence and non-adherence are dangerous and can lead to changes in treatment due to unexpected adverse effects or perceived lack of response. These can also lead to unnecessary diagnostic tests, changes in dose or therapy, and hospitalizations. All of these increase healthcare costs and decrease patient outcomes⁴.

Factors contributing to patient non-adherence

Patient adherence to oral anti-cancer treatment is complex and multifaceted. The Oncology Nursing Society identified potential barriers ranging from socio-economic, healthcare system, disease, treatment, and patient-related impediments to adhering to oral anti-cancer treatments. Specifically, these barriers include:

Dimension	Barrier
Socioeconomic	<ul style="list-style-type: none">• Low language literacy• Lack of family or social support• Homelessness• Lack of health insurance/medication cost/copays• Limited access to a pharmacy• Busy work or social lifestyle
Healthcare system	<ul style="list-style-type: none">• Poor provider communication skills• Poor patient-provider relationship• Lack of knowledge on adherence• Lack of reinforcement from healthcare providers• Patient information materials written at a high literacy level
Disease	<ul style="list-style-type: none">• Asymptomatic• Severity of symptoms
Treatment regimen	<ul style="list-style-type: none">• Complex regimen• Lack of quick benefit• Side effects• Requires significant behavioral changes
Patient related	<ul style="list-style-type: none">• Physical factors• Knowledge deficit• Attitude, confidence, motivation• Psychological/behavioral/developmental factors• Perceived benefit of treatment• Fear of possible adverse effects• Stress/anxiety/anger• Alcohol or substance abuse

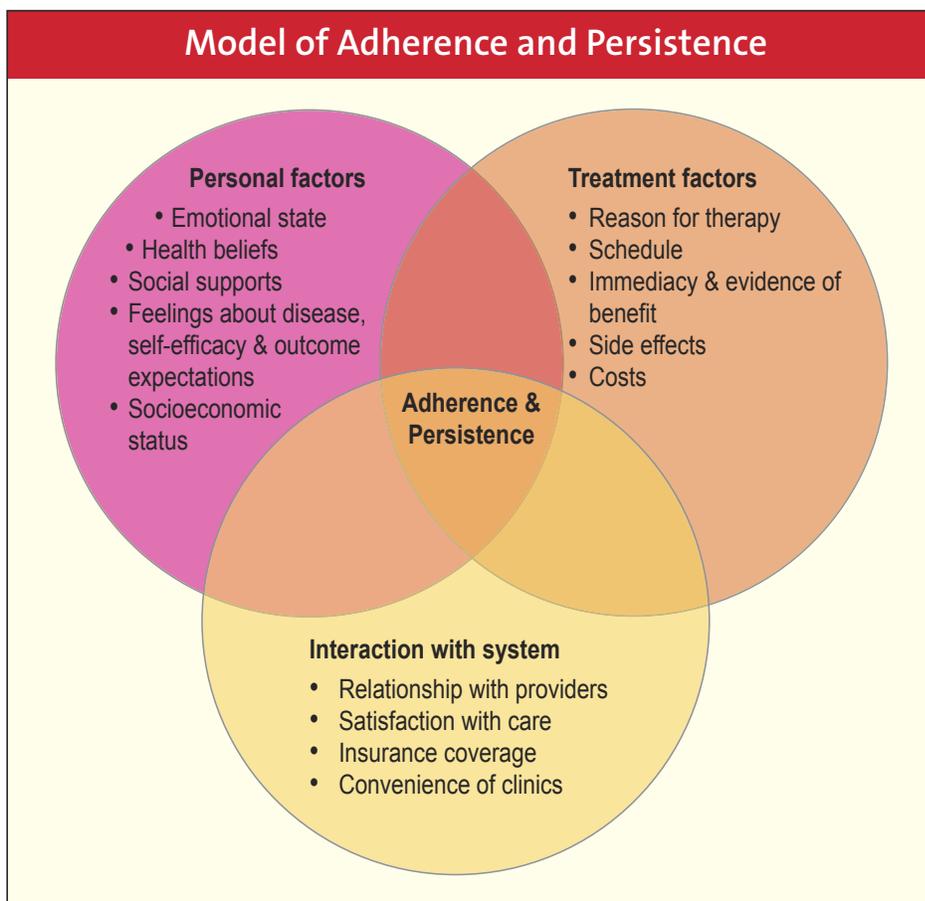
There are many factors that contribute to patient non-adherence to oral anticancer treatments, and increasing patient adherence to treatment requires multi-faceted solutions.

Enhancing patient adherence

According to Kathryn Ruddy, MD, the factors most frequently associated with non-adherence are:

- Individual patient characteristics
- Features of the disease and treatment regimen
- Aspects of the healthcare system

Understanding potential adherence barriers, and how these barriers impact one another, will help providers, payers, and life sciences companies develop strategies that enhance patient adherence to oral anticancer treatments. Dr. Ruddy published a model that depicts the complexities of adherence⁵.



Enhancing Patient Adherence

According to Steve D'Amato, RPh, BCOP, there are a number of factors that contribute to improved patient adherence to oral anticancer therapies including:

- Encouraging collaboration amongst the healthcare team—physicians, pharmacists, and nurses
- Simplifying treatment regimens
- Providers working together proactively to identify potential drug interactions
- Involving patients in all aspects of decision-making, which increases motivation and adherence
- Reassuring patients that oral therapies are effective
- Educating patients that responses take time to evolve, and encouraging them to be patient
- Assuring patients the healthcare team is supporting them and is available to answer questions
- Regular communication and follow up either by telephone or in-person to:
 - Answer questions
 - Monitor adherence on an on-going basis
 - Provide refills often so providers can evaluate a patient's individual adherence
 - Check-in with patients that have missed appointments
 - Schedule follow up appointments at convenient times for patients

Additionally, patient and family education has been shown to increase adherence to treatment. Successful educational initiatives focus on:

- Dose
- Frequency
- Timing of dosing
- What to do if a dose is missed
- Side effects
- Managing symptoms and side effects
- What to do if an adverse event occurs
- Ramifications of non-adherence

Optimal patient outcomes require adherence, education, communication, on-going monitoring, and follow up. Since many factors contribute to patient non-adherence, many approaches must be used to be effective in promoting medication adherence. Ultimately, patient adherence is a long-term intervention and it depends on the patient's view of the benefits, costs, and risks of the treatment.

The role of life sciences companies in supporting patient adherence

Patients are looking for information to help them manage their health conditions, and life sciences companies have the knowledge to be a trusted source of information. We have seen adherence rates in chronic conditions increase by 10% to 15% after a patient support program is implemented and maintained for approximately one year.

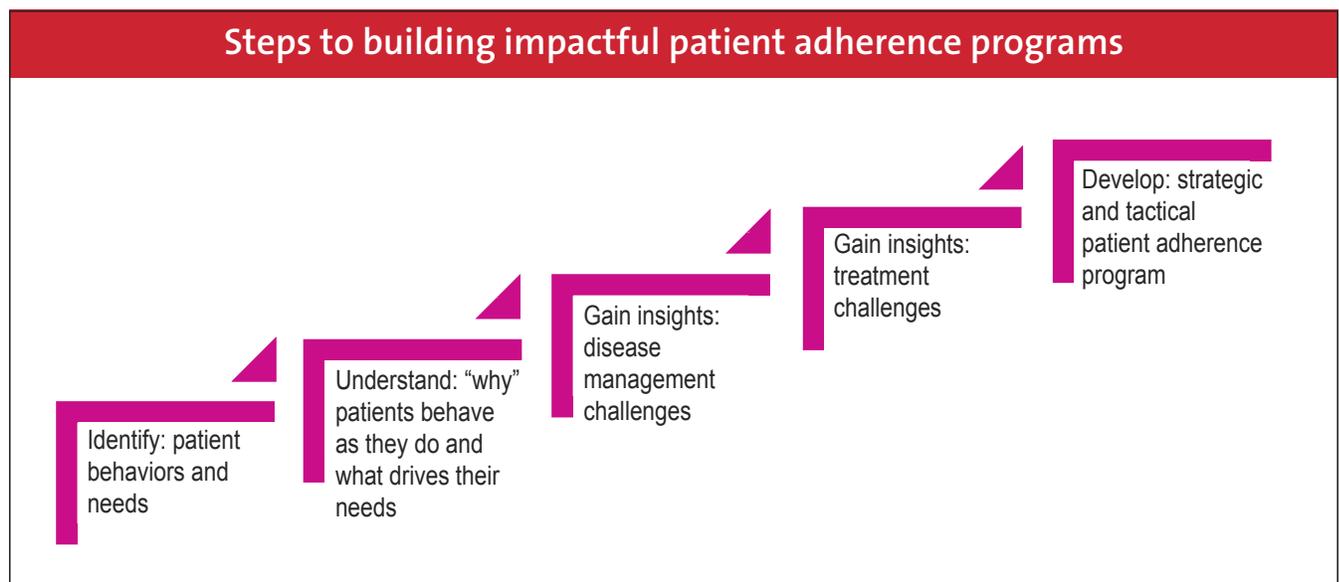
Valuable patient and caregiver support programs focus on the patient and help patients meet their needs and overcome challenges. Patient and caregiver support programs are particularly effective in helping patients and caregivers in these situations:

- Treating a chronic condition, as with many cancers
- Dosing or administration for a treatment is complicated or challenging
- Treatment has the potential for significant side effects
- Low rates of patient retention

Developing successful patient support programs

Successful patient support programs begin with a focus on the patient, and strive to provide value to patients and caregivers. A critical starting point is to understand patient needs and behaviors in managing their condition and treatment. It is important to understand what behaviors patients exhibit and why. The understanding of patients and their treatment journey is at the center of the process of developing targeted and personalized approaches that support patients in meaningful ways. Targeted and personalized approaches build a sense of value, commitment, and trust with patients. If patients are able to overcome challenges they will stay on therapy, which provides them with enhanced outcomes, greater quality of life, and potentially decreased healthcare costs.

The graphic below depicts the process for integrating insights on patient behaviors and needs with disease management challenges and treatment challenges. Integrating these insights will lead to a meaningful patient support program.



Patients want personalized experiences

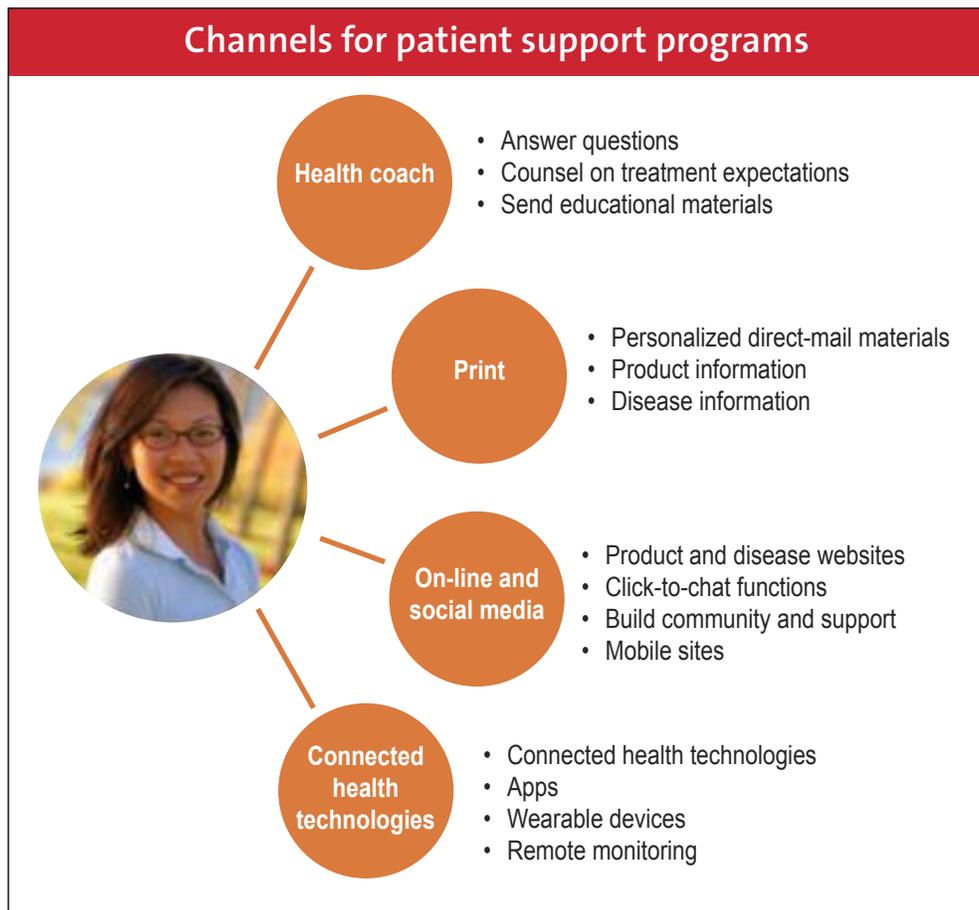
Patients are looking for information to help them manage their health conditions, and life sciences companies have insights and knowledge that can help patients. Patients are using online resources and networks for healthcare education and support. This is driving the demand for personalized materials and educational experiences. Patients no longer will settle for materials developed for the masses. Rather, they demand information that is specific to them, their condition, and their needs.

Technological advances provide many opportunities for delivering customized information. Some of the newest trends being used in patient support programs include:

- On-demand live call center support
- Online resources through websites and social networking sites
- Click-to-chat support through websites
- Mobile sites and applications
- Vital sign monitoring devices

Enhancing Patient Adherence

The heart of a successful patient adherence programs is communication. The graphic below depicts the various channels patient support programs can use to deliver valuable support and information. Patients' communication preferences and desires will drive the selection of the channels.



Pharmaceutical call centers are an invaluable resource to provide 24/7 access to operators and health coaches to answer questions. Operators and health coaches speak with patients on a daily basis, and they have invaluable insights into the areas that are most challenging and concerning for patients and caregivers. An added benefit is the ability to communicate in real-time with patients and caregivers to remind them about appointments and prescription refills, and to quickly process requests for educational materials.

Online resources play an important role in effective patient support programs. Online resources such as websites, click-to-chat support, and social networking sites are ideally suited to provide individualized and targeted information based on patient characteristics. However, many life science companies have been reluctant to move quickly and deeply into providing online resources, given concerns about regulatory consequences if off-label information is presented. In December 2011 the FDA released guidance to industry on responding to unsolicited requests for off-label information from patients. In this document, the FDA recognizes

that life sciences companies are capable of responding to requests about their own products in a truthful, non-misleading, and accurate manner. Additionally, the FDA recognizes that there is benefit and value for life science companies to respond because they know their product the best. The FDA is placing trust in life science companies to provide off-label information appropriately and with integrity.

Additionally, mobile applications are becoming increasingly more often used to access information, communicate alerts about a particular product, and provide reminders to patients about appointments and refills. Take the time to understand if patients taking your product are likely to retrieve information via mobile devices. If they will, it's worth the investment to develop a mobile application so patients can access materials through mobile devices such as tablets and smartphones, and to develop materials specifically suited to be interacted with and viewed on mobile devices.

There is growing interest in understanding if connected health technologies can engage and activate patients to manage their health and healthcare. Patients are increasingly using online technologies and intelligent devices to take charge of their health and manage chronic conditions. In 2014, President Obama appointed three experts to comprise a President's Cancer Panel to "Hold workshops and develop a written report to answer timely and critical questions about connected health strategies and technologies and their potential to engage and activate patients with the ultimate goal to improve patient outcomes." There is growing evidence that connected health technologies and patient activation may increase patient adherence to oral cancer treatments, lower patient distress, decrease emergency room visits, and lower costs⁶.

Connected health technologies and devices provide physicians and healthcare providers with timely information on a patient's condition and allow them to make immediate changes if necessary. These technologies are becoming more widely used and the impact they can have on a patient's health today is profound. If you are considering connected health technologies as a part of your patient support program, think about how the information will be provided to providers and what their capabilities are to accept and act on this data.

Case Study: Patient and caregiver support programs in oncology provided by Tunstall Healthcare

Objectives

- Increase patient awareness of a specific treatment option
- Support patients and caregivers to adhere to treatment by providing information and support throughout the treatment process
- Maintain or increase market share in a competitive market with numerous treatment options through greater brand awareness and visibility

Program Overview

- Make a connection with individual patients through the patient support program
- Nurture relationships with patients so they adhere to treatment

With most Tunstall patient support programs support is available 24/7 and 365 days a year. Patients and caregivers can call at any time to sign up for services, ask questions, and discuss disease-state or treatment concerns. For each Tunstall program, we develop specific protocols that outline the specific points our Care Counselors will follow, regarding interactions with patients and caregivers. It is common for a Care Counselor to contact newly enrolled patients to welcome them to the program and ensure they know how they can get in touch with a Care Counselor in the future. These interactions can occur via telephone and click-to-chat functionality through the product website.

The Care Counselor will oftentimes discuss, with the patient, information based on where the patient is in the care continuum (ie, newly diagnosed, weighing treatment options, beginning treatment, or entering maintenance phase). Frequently, Care Counselors answer questions from patients and caregivers about what to expect during treatment, how the treatment works, how often to take their medication, if certain foods should be avoided while taking their medication, what to do if a dose is missed, how to recognize common side effects and how to manage them, and how to receive co-pay assistance. The goal of the Care Counselor is to support patients and caregivers, and frequently the advice they provide is to encourage patients and caregivers to speak with healthcare providers about a specific question or concern.

Care Counselors support patients through the care continuum. They provide patients with information during the decision-making process, support patients through drug initiation, and continue the relationship while their patients stay on treatment. The patient and caregiver decide how they want to receive information (i.e., electronically, online, phone calls with Care Counselors, or direct mail printed materials). Our patient support programs are designed to provide patients and caregivers with information while they are evaluating treatment options, as well as support patients and caregivers to maintain treatment once it's initiated.

The Care Counselor serves as a resource to patients and caregivers, and they are committed to assisting and supporting patients and caregivers through the entire lifecycle of the disease. Patients and caregivers are encouraged to speak with a Care Counselor as often and long as they like.

Results Snapshot

- On average 91% of patients remain enrolled in a patient support program after 6 months of beginning the program
- Real-time insights into information patients and caregivers are most interested in receiving

Closing thoughts

The future of patient support is centered on empowering patients to take an active role in managing their conditions. Patients need information, support, and guidance from their physicians and healthcare providers. This can be an overwhelming task for physicians and healthcare providers given the demands on their time. Opportunities exist for life sciences companies to provide information and educational materials through impactful programs that help patients manage their condition and adhere to treatment.

Additionally, patient and caregiver support programs build relationships, create value, and demonstrate the company's commitment to improving patient outcomes and quality-of-life.

Solutions from Tunstall Healthcare Group

Tunstall is the world leader in connected health services. Tunstall delivers customized 24/7 healthcare communication services to connect individuals, caregivers, and healthcare providers to empower better health. Tunstall's innovative products and services enhance patient care, improve outcomes, and increase operational efficiencies for hospitals, medical centers, health systems, payers, and life science companies.

Tunstall is focused on helping build and maintain relationships with patients, caregivers, and healthcare providers to drive awareness and knowledge, support patient adherence, and empower patients to take charge of their health. Tunstall works closely with each client to develop customized solutions for all call center needs and to design and build successful patient and caregiver support programs.

Serving more than 3.5 million people worldwide every day, Tunstall is uniquely qualified to implement patient support and adherence programs. Tunstall offers a wide-variety of personal emergency response devices that can be used in any patient setting or via mobile devices to provide 24/7 monitoring and click-to-chat services for support, information, and educational materials to patients, providers, and payers.

Tunstall is the voice of connected health.

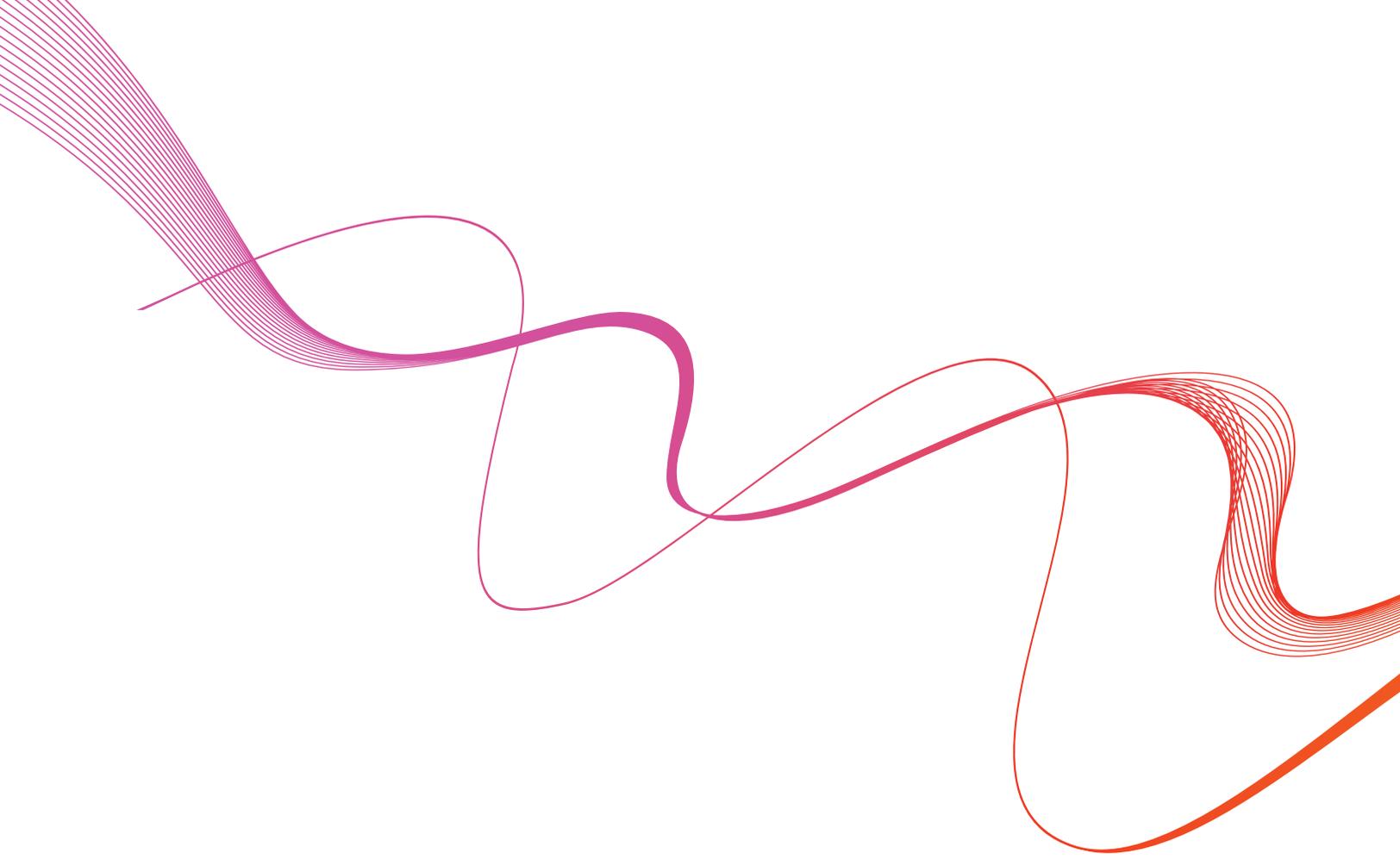
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For more information, visit www.tunstall.com.

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