

**FOR PUBLICATION**

**UNITED STATES COURT OF APPEALS  
FOR THE NINTH CIRCUIT**

UNITED STATES OF AMERICA,

*Plaintiff - Appellee,*

v.

MARK SCHENA,

*Defendant - Appellant.*

No. 23-2989

D.C. No.  
5:20-cr-00425-  
EJD-1

OPINION

Appeal from the United States District Court  
for the Northern District of California  
Edward J. Davila, District Judge, Presiding

Argued and Submitted February 11, 2025  
Honolulu, Hawaii

Filed July 11, 2025

Before: Sidney R. Thomas, Daniel A. Bress, and Ana de  
Alba, Circuit Judges.

Opinion by Judge Bress

## SUMMARY\*

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### **Criminal Law**

The panel affirmed Mark Schena’s convictions for violating the Eliminating Kickbacks in Recovery Act (EKRA), which criminalizes, among other things, the payment of “remuneration . . . to induce a referral of an individual to a recovery home, clinical treatment facility, or laboratory.” 18 U.S.C. § 220(a)(2)(A).

The panel interpreted this 2018 law for the first time, as to a laboratory operator who made payments to marketing intermediaries to induce referrals for medically dubious allergy tests.

Schena operated medical testing laboratory Arrayit. He argued that § 220(a)(2)(A) covers only payments made to the persons who are doing the actual patient referrals, most typically doctors and other medical professionals, and that if payments to marketers are covered, they are covered only if the marketers directly engage with patients. The panel disagreed, holding that § 220(a)(2)(A) covers marketing intermediaries who interface with those who do the referrals, and that under EKRA, there is no requirement that the payments be made to a person who interfaces directly with patients. The panel concluded that a reasonable jury could find that Schena was paying marketers with the goal that individuals would be referred to Arrayit.

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\* This summary constitutes no part of the opinion of the court. It has been prepared by court staff for the convenience of the reader.

The panel also addressed what it means to “induce a referral” in this context. The panel held that a percentage-based compensation structure for marketing agents, without more, does not violate § 220(a)(2)(A), but the evidence is sufficient to show wrongful inducement when, as here, the defendant pays remuneration to a marketing agent to have him unduly influence doctors’ referrals through false or fraudulent representations about the covered medical services.

For these reasons and those set forth in an accompanying memorandum disposition, the panel affirmed Schena’s EKRA and other convictions, vacated in part the restitution order, and remanded in part.

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## COUNSEL

Sofia M. Vickery (argued), Attorney, Appellate Section, Criminal Division; Jeremy R. Sanders, Trial Attorney; Lisa H. Miller, Deputy Assistant Attorney General; Nicole M. Argentieri, Principal Deputy Assistant Attorney General; United States Department of Justice, Washington, D.C.; Laura Connelly, Trial Attorney, Fraud Section, Criminal Division; Merry J. Chan and Christina Liu, Assistant United States Attorneys; Jacob Foster, Principal Deputy Assistant Chief; Ismail J. Ramsey, United States Attorney; Office of the United States Attorney; United States Department of Justice, San Francisco, California; for Plaintiff-Appellee.

Leah Spero (argued), Spero Law Office, San Francisco, California, for Defendant-Appellant.

## OPINION

BRESS, Circuit Judge:

To combat fraud and abuse in the healthcare industry, the Eliminating Kickbacks in Recovery Act (EKRA) criminalizes, among other things, the payment of “remuneration . . . to induce a referral of an individual to a recovery home, clinical treatment facility, or laboratory.” 18 U.S.C. § 220(a)(2)(A). We interpret this 2018 law for the first time, as to a laboratory operator who allegedly made payments to marketing intermediaries to induce referrals for medically dubious allergy tests. We hold that the defendant’s challenged conduct is within the scope of the EKRA statute and that the evidence supported the EKRA charges.<sup>1</sup>

### I

We describe the facts most relevant to the EKRA counts, construing the evidence presented at trial in the light most favorable to the government. *See United States v. Nevils*, 598 F.3d 1158, 1163–64 (9th Cir. 2010) (en banc).

Mark Schena operated Arrayit, a medical testing laboratory in Northern California. A small business staffed with his wife and other family members and friends, Arrayit initially focused on selling equipment to other laboratories. Schena, who had an “obsession” with medical billing codes, wanted a way to make large amounts of money from billing

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<sup>1</sup> We address the other issues in this appeal in an accompanying memorandum disposition. In total, we affirm the defendant’s convictions and affirm in part and vacate and remand in part the district court’s restitution order.

insurers. To that end, he decided to transition Arrayit to conduct clinical diagnostics on its own.

Arrayit's testing focused on blood tests for allergies. Typically, allergists use skin tests and only use blood tests as a secondary measure when a skin test cannot be performed due to a patient's skin problems. But Schena marketed the blood tests as superior, in large part because he believed he could bill patients' insurance providers up to \$10,000 for each full suite of tests. The tests only cost Arrayit a small fraction of the amount billed. Arrayit conducted tests for 120 allergens, not because this was medically necessary (some of the tested allergens were rare), but because it was the most its machine could process. Evidence at trial indicated that for most patients, testing for the full 120 allergens was not warranted.

Key to Schena's plan to gain insurance proceeds was maintaining a steady flow of patient samples to test. That, in turn, required finding doctors who would steer their patients to Arrayit. Schena tasked a series of marketers with pitching Arrayit's services to medical professionals. Marketers were not paid a salary or given written contracts; instead, marketers were paid a percentage of the revenue that they were able to bring in.

The evidence at trial showed that Schena orchestrated a scheme in which his marketers, most prominently Marc Jablonski, misrepresented Arrayit's services, and the need for those services, to doctors and other medical professionals, with the goal of inducing patient referrals. Schena instructed his marketers to pitch the blood tests to "naïve" doctors who lacked allergy experience (such as chiropractors and naturopaths), even though allergists considered skin testing to be superior and 120 allergen tests

per person were usually not necessary. Schena's marketers "stayed away from the allergists because they didn't believe in the tests." Marketing agents misleadingly told the less sophisticated doctors that Arrayit's blood testing was "highly accurate" and "far superior" to skin tests, even though Arrayit's blood tests could not assess whether the patient had an allergy (as opposed to having been exposed to an allergen).

The marketers' undue influence extended beyond their misrepresentations. At trial, Jablonski—who himself pleaded guilty to conspiring to defraud the United States through kickbacks—testified that marketers "controlled" which lab the blood samples would be sent to. Another marketer testified that Arrayit's financial incentives ensured that marketers would push blood tests and not mention skin tests as an option.

When the COVID-19 pandemic began in 2020, Arrayit's testing volume fell dramatically as patients stayed home and did not get their blood tested. So, Schena transitioned to COVID testing. As with allergies, Arrayit utilized a blood test (which tested for antibodies) rather than the "gold standard" PCR test (which could detect active infections). Despite this limitation, Schena had Arrayit marketers hawk his COVID test as equal or superior to PCR tests. Schena also directed marketers to mislead doctors about how quickly the COVID test results would be available.

Schena further used marketing agents to secure blood tests through the COVID tests. To be able to test the blood for allergies (and to bill for these more lucrative tests), Schena instructed marketers to bundle allergy tests with COVID tests. In addition, Arrayit marketers falsely claimed that according to Dr. Anthony Fauci, COVID and allergies

could be confused, requiring tests for both. If doctors only ordered a COVID test, Schena directed lab employees to run allergy tests anyway. In one case, when a patient wrote on the test form that she wanted a “COVID test only,” Arrayit ran an allergy test as well—and billed her insurance nearly \$5,300 for it.

Arrayit’s billing practices allowed it to bill far more per patient than comparable providers. An analysis of Arrayit’s billings to Medicare showed that the company billed an average of \$5,200 per patient—more than any other laboratory in the country and over \$4,000 more than the average laboratory billing per beneficiary. In aggregate, between October 2018 and June 2020, Arrayit billed more than \$77 million to public and private insurers. But insurers paid only around \$2.7 million, as many claims were denied or paid at a lower rate.

For this scheme along with other misconduct, the government charged Schena with one count of conspiracy to commit healthcare fraud, 18 U.S.C. § 1349; two counts of healthcare fraud, 18 U.S.C. §§ 2, 1347; one count of conspiracy to violate EKRA, 18 U.S.C. § 371; two counts of EKRA violations, 18 U.S.C. §§ 2, 220(a)(2); and three counts of securities fraud, 15 U.S.C. §§ 78j, 78ff; 17 C.F.R. 240.10b-5; 18 U.S.C. § 2. The EKRA counts were based on two payments made to Jablonski.

Schena moved to dismiss the EKRA counts, arguing that his conduct did not violate the statute as a matter of law because the percentage payments were made only to marketing intermediaries, not to the persons who themselves were making referrals, i.e., doctors. The district court denied the motion.

The jury convicted Schena on all counts. The district court sentenced Schena to 96 months in prison and ordered him to pay more than \$24 million in restitution. This appeal follows.

## II

### A

Congress passed EKRA in 2018 to further curb fraud and abuse by healthcare providers. *See* Pub. L. No. 115-271, 132 Stat. 3894 (2018); Laura F. Laemmle-Weidenfeld, *Navigating the Rocky Waters of the Eliminating Kickbacks in Recovery Act, in Health L. Handbook* 12 (Alice G. Gosfield ed., 2022). The Anti-Kickback Statute, 42 U.S.C. § 1320a-7b, already prohibited certain kickbacks for medical services reimbursed through Medicare and other federal programs. *See United States v. Hong*, 938 F.3d 1040, 1047 (9th Cir. 2019); Chinelo Diké-Minor, *The Untold Story of the United States' Anti-Kickback Laws*, 20 Rutgers J.L. & Pub. Pol'y 103, 108–13 (2023). In EKRA, Congress sought to impose a similar prohibition for certain covered services, for patients with private insurance. Diké-Minor, *Untold Story*, 20 Rutgers J.L. & Pub. Pol'y at 155–60.

Highlighting in bold italics the key language at issue in this case, the relevant text of EKRA reads as follows:

[W]hoever, with respect to services covered by a health care benefit program, in or affecting interstate or foreign commerce, knowingly and willfully--

**(1) solicits or receives any remuneration (including any kickback, bribe, or rebate) directly or indirectly, overtly or covertly,**

in cash or in kind, in return for referring a patient or patronage to a recovery home, clinical treatment facility, or laboratory; or

***(2) pays or offers any remuneration (including any kickback, bribe, or rebate) directly or indirectly, overtly or covertly, in cash or in kind--***

***(A) to induce a referral of an individual to a recovery home, clinical treatment facility, or laboratory; or***

***(B) in exchange for an individual using the services of that recovery home, clinical treatment facility, or laboratory,***

shall be fined not more than \$200,000, imprisoned not more than 10 years, or both, for each occurrence.

18 U.S.C. § 220(a) (emphasis added).

The statute also includes a few safe-harbor provisions. Most notably, “a payment made by an employer to an employee or independent contractor . . . for employment” is permitted so long as the “employee’s payment is not determined by or does not vary by (A) the number of individuals referred to a particular recovery home, clinical treatment facility, or laboratory; (B) the number of tests or procedures performed; or (C) the amount billed to or received from” a patient’s insurance company. 18 U.S.C. § 220(b)(2).

In this case, several points are not in dispute. Arrayit is a “laboratory” within the meaning of the statute. It is clear from the record that Schena paid remuneration to the marketers. And the payments did vary based on the number of tests or procedures performed, so the § 220(b)(2) safe-harbor provision does not apply.

The disagreement between Schena and the government rests on two other aspects of § 220(a)(2)(A): (1) whether EKRA applies to payments made to marketing intermediaries, as opposed to the referring doctors or persons who otherwise interact directly with patients, and, (2) if payments to marketing intermediaries are covered, what it means to “induce a referral” in the context of that type of payment relationship. To answer these questions, we apply our usual tools of construction, interpreting the statutory text based on its plain and natural meaning and with a view to the statute as a whole. *See, e.g., Davis v. Michigan Dep’t of Treasury*, 489 U.S. 803, 809 (1989); *San Francisco Herring Assoc. v. U.S. Dep’t of the Interior*, 33 F.4th 1146, 1152 (9th Cir. 2022).

## B

The first question is whether 18 U.S.C. § 220(a)(2)(A) covers payments to marketers designed to induce referrals, or whether the provision is limited to payments made to the persons who are doing the actual patient referrals, most typically doctors and other medical professionals. Schena maintains it is the latter. And if payments to marketers are to be covered, he maintains they are covered only if the marketers directly engage with patients. We disagree and hold that 18 U.S.C. § 220(a)(2)(A) covers marketing intermediaries who interface with those who do the referrals.

Under EKRA, there is no requirement that the payments be made to a person who interfaces directly with patients.

The basic rejoinder to Schena's position is that the statute does not create the limitation he seeks. The statute penalizes one who "pays or offers any remuneration (including any kickback, bribe, or rebate) directly or indirectly, overtly or covertly, in cash or in kind-- . . . to induce a referral of an individual to a recovery home, clinical treatment facility, or laboratory." 18 U.S.C. § 220(a)(2)(A). Nothing in this provision, including the term "kickback," limits its reach to payments made specifically to persons who have the authority to refer patients or who directly interact with patients. One could "induce a referral" by paying someone who could in turn effect a referral, even if the person who received the payment did not himself have the ability to order a laboratory test or refer a patient to a treatment facility. That the statutory language applies to anyone who pays remuneration "*directly or indirectly*" to induce a referral further supports this reading. *See United States v. Prasad*, 18 F.4th 313, 325 (9th Cir. 2021) (explaining that the phrasing "directly or indirectly" "reaches broadly"). We therefore agree with the district court that "[t]he plain meaning of 'to induce a referral of an individual' includes situations where a marketer causes an individual to obtain a referral from a physician."

In *S&G Labs Hawaii, LLC v. Graves*, 2021 WL 4847430 (D. Haw. Oct. 18, 2021), another district court in our circuit reached a different conclusion on this point.<sup>2</sup> Observing that EKRA refers to the induced referral "of an individual," the district court in *S&G* determined that EKRA did not apply

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<sup>2</sup> The *S&G* appeal, No. 24-823, was also assigned to this panel and was argued before us in coordination with this case.

when a marketing employee interfaced with doctors and other treatment providers, because the “‘client’ accounts they serviced were not individuals whose samples were tested at” S&G’s lab. *Id.* at \*11.

In our respectful view, S&G’s interpretation was incorrect because the phrase “to induce a referral of *an individual*” means merely that the ultimate object of the inducement must be a natural person to whom covered medical services would be provided. It does not follow, as the S&G court determined, that 18 U.S.C. § 220(a)(2)(A) is limited to payments made to persons who are “working with” such individual patients. *S&G Labs Hawaii, LLC*, 2021 WL 4847430, at \*11. As we have explained above, the statute does not impose that requirement. While it is true that the doctors’ offices to whom a marketer pitches services are not “individuals” under the statute, a third party such as a marketer could still induce a patient referral through a doctor or other medical professional.

Our interpretation of EKRA is in accord with the circuits that have interpreted an analogous provision in the Anti-Kickback Statute. *See* 42 U.S.C. § 1320a–7b(b)(2)(A) (“Whoever knowingly and willfully offers or pays any remuneration (including any kickback, bribe, or rebate) directly or indirectly, overtly or covertly, in cash or in kind to any person to induce such person—(A) to refer an individual to a person for the furnishing or arranging for the furnishing of any item or service for which payment may be made in whole or in part under a Federal health care program . . . shall be guilty of a felony.”).

In *United States v. Shoemaker*, 746 F.3d 614 (5th Cir. 2014), the Fifth Circuit considered a case in which a nurse staffing business bribed the chairman of the board of a

Mississippi hospital to use its contract nurses. *Id.* at 617. The chairman, in turn, authorized a \$50,000 raise for the chief operating officer to compensate him for his participation in the scheme. *Id.* In upholding the convictions of both defendants, the Fifth Circuit rejected the contention that Anti-Kickback “liability cannot attach unless the ‘person’ who receives such remuneration is a ‘relevant decisionmaker’ with formal authority to effect the desired referral or recommendation.” *Id.* at 627. Holding otherwise, the Fifth Circuit reasoned, “would be tantamount to re-writing the statutory text” and would mean that “if a bribe-giver wanted to avoid liability, he could simply identify the individual with direct operational authority over the desired decision, and bribe a manager who is at least one level removed in the chain of command.” *Id.* at 629; *see also United States v. Miles*, 360 F.3d 472, 480 (5th Cir. 2004) (noting that there are “certain situations where payments to non-doctors would fall within the scope of the” Anti-Kickback Statute); *United States v. Polin*, 194 F.3d 863, 866–67 (7th Cir. 1999) (holding that 42 U.S.C. § 1320a–7b(b)(2)(A) applied to payments made to a marketing intermediary because the provision “do[es] not distinguish between physicians and lay-persons”).

Similar problems would arise in the EKRA context under Schena’s proposed reading. To evade EKRA, the recipient of unlawful payments from a provider would need only to enlist a subordinate or other agent to pressure a patient into using the provider’s services. Once again, nothing in the text of 18 U.S.C. § 220(a)(2)(A), or the statute as a whole, supports that reading. We thus conclude that the reference to “an individual” in § 220(a)(2)(A) requires that the remuneration generally contemplate the referral of a patient for an EKRA-covered service. But the statute imposes no

requirement that the recipient of the remuneration directly interact with an “individual” patient for § 220(a)(2)(A)’s prohibition to apply.

Applying that understanding to this case, a reasonable jury could find that Schena was paying marketers with the goal that individuals would be referred to Arrayit. Even though the marketers did not directly interface with patients, Schena does not (and cannot) dispute that the marketers’ ultimate objective was to cause patients to use Arrayit’s services.

### C

We now turn to the connection between the payments and the goal of obtaining referrals. That connection turns on the statutory language “to induce.”

If a payment is made directly to a person who is making the referral, such as a doctor, the payment induces the referral by the very fact of the payment itself. Such a payment is by definition unlawful under EKRA. But we must consider what it means to “induce a referral” in the context of a case such as this, in which the defendant is alleged to have made payments to a marketing agent “to induce a referral of an individual.” We conclude that a percentage-based compensation structure for marketing agents, without more, does not violate 18 U.S.C. § 220(a)(2)(A). But the evidence is sufficient to show wrongful inducement when, as here, the defendant pays remuneration to a marketing agent to have him unduly influence doctors’ referrals through false or fraudulent representations about the covered medical services.

The starting point for our analysis is the key word in § 220(a)(2)(A): “induce.” EKRA does not define that term.

But “induce” has a “longstanding history” in criminal law. *United States v. Hansen*, 599 U.S. 762, 778 (2023). Although “[i]n ordinary parlance, ‘induce’ means [t]o lead on; to influence; to prevail on; to move by persuasion or influence,” it has a “specialized, criminal-law” meaning that “incorporat[es] common-law liability for solicitation and facilitation.” *Id.* at 774 (internal quotations omitted). Criminal solicitation “is the intentional encouragement of an unlawful act,” and criminal facilitation (also known as aiding and abetting) “is the provision of assistance to a wrongdoer with the intent to further an offense’s commission.” *Id.* at 771. We take from *Hansen* that the term “induce” connotes not mere causation, but wrongful causation. And it makes sense to read EKRA as incorporating the “well-established legal meaning[]” of “induce,” because “when Congress ‘borrows terms of art in which are accumulated the legal tradition and meaning of centuries of practice, it presumably knows and adopts the cluster of ideas that were attached to each borrowed word.’” *Id.* at 774 (quoting *Morissette v. United States*, 342 U.S. 246, 263 (1952)).

Although no circuit court has interpreted “induce” in 18 U.S.C. § 220(a)(2)(A), case law from the Anti-Kickback Statute context is once again informative (as Schena himself agrees). In that context, we have said that “mere encouragement would not violate the statute.” *Hanlester Network v. Shalala*, 51 F.3d 1390, 1398 (9th Cir. 1995). Instead, “‘to induce’ . . . connotes an intent to exercise influence over the reason or judgment of another in an effort to cause the referral of program-related business.” *Id.* (internal quotations omitted). Such conduct is not merely influence; we understand *Hanlester*, based on the facts of the case, to require undue influence. *Id.* at 1399.

A more robust body of Anti-Kickback Statute precedent from the Fifth Circuit is also illuminating. In *Miles*, the Fifth Circuit considered the scope of the Anti-Kickback Statute in the case of defendants who ran a home health service provider and paid a marketing firm to distribute literature and business cards to local medical offices, along with the occasional plate of cookies. 360 F.3d at 479–80. The marketers were paid \$300 for every patient who ultimately signed up. *Id.* at 479.

Reversing the convictions, the Fifth Circuit held that the marketers “simply engaged in advertising activities” on behalf of the defendant’s company, and “[t]here was no evidence that [the marketer] had any authority to act on behalf of a physician in *selecting* the particular home health care provider.” *Id.* at 480. But *Miles* cautioned that it would have been different had the intermediary “ma[de] the decision as to *which* service provider to contact.” *Id.* (citing *Polin*, 194 F.3d at 865).

That warning proved prescient in *Shoemaker*, where the Fifth Circuit upheld the convictions before it. 746 F.3d at 631. In that case, which involved the bribery of hospital executives, the payor “was not asking for a brochure bearing his company’s name to be distributed to [the hospital’s] staff; rather, enough evidence showed that he wanted [the hospital board’s chairman] to exploit his personal access to [hospital] executives.” *Id.* at 629. The key difference from *Miles* was the presence of “undue influence” over the referrals. *Id.* *Miles* was therefore distinguishable:

Where advertising facilitates an independent decision to purchase a healthcare good or service, and where there is no evidence that the advertiser “unduly influence[s]” or

“act[s] on behalf of” the purchaser, the mere fact that the good or service provider compensates the advertiser following each purchase is insufficient to support the provider’s conviction for making a payment “to refer an individual to a person” under 42 U.S.C. § 1320a–7b(b)(2)(A).

*Id.* (quoting *Miles*, 360 F.3d at 480); *see also United States v. Marchetti*, 96 F.4th 818, 827 (5th Cir. 2024) (explaining that in the case of payments to marketers, the government under the Anti-Kickback Statute must prove that the defendant “intended ‘improperly [to] influence[]’ those who make healthcare decisions on behalf of patients”) (quoting *Miles*, 360 F.3d at 481) (brackets in original).

We interpret “induce” similarly in the EKRA context. Given the criminal law heritage of the term “induce” and the past treatment of that concept under the Anti-Kickback Statute, we do not think the mere fact of a percentage-based marketing arrangement, without more, would constitute a *per se* violation of EKRA. As the Fifth Circuit has explained in the Anti-Kickback Statute context, in the case of payments to marketing agents “[t]he structure of the contract alone is not sufficient evidence to produce a conviction.” *Marchetti*, 96 F.4th at 826. And at oral argument, the government itself agreed that a percentage-based payment to a marketer is not *per se* unlawful under EKRA. All marketing efforts are intended to influence the recipient. In the absence of a clearer indication in the statute, we are hard-pressed to read EKRA to criminalize (with major federal penalties) a standard payment structure for marketing personnel, even when the marketing personnel are persuasive in driving business. *See id.* at 827 (observing under the Anti-Kickback

Statute that “not every sort of influence is improper. (What are advertisers hired to do anyway?)”).<sup>3</sup>

Future cases will be needed to give content to the specific circumstances in which payments to a marketing agent reflect a wrongful effort to unduly influence the decisions of doctors and medical professionals making referrals. Given that reality, and although fraudulent conduct risks implicating other criminal statutes, companies and marketing agents seeking to steer clear of EKRA may consider whether it is preferable to structure their compensation arrangements in accordance with the statute’s safe harbor. *See* 18 U.S.C. § 220(b)(2).

At the same time, this case does not require us to reach the potentially more difficult questions in this area. We agree that when a marketing intermediary effectively takes over the role of the referring physician, payments to the marketer would “induce a referral” under 18 U.S.C. § 220(a)(2)(A). *See Polin*, 194 F.3d at 866 (upholding Anti-Kickback Statute conviction where marketing agent “would call [the provider] and arrange for the patient’s follow-up himself”). But contrary to Schena’s suggestion, that is not the only way that a payment to a marketing agent could induce a referral. Instead, we conclude that at a minimum, when percentage-based payments are made to marketing agents who are directed to mislead those making the referrals about the nature of and need for the covered medical services, those payments would violate EKRA. This is not

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<sup>3</sup> That a percentage-based marketing arrangement is not, standing alone, a *per se* violation of EKRA explains our result in the coordinated S&G appeal. *See ante* at n.2. There, in a separate memorandum disposition, we conclude that the counterclaim-plaintiff’s employment contract did not violate EKRA.

a necessary set of circumstances for establishing undue influence, but it is sufficient. Construing the evidence in the light most favorable to the verdict, *see Nevils*, 598 F.3d at 1163–64, that type of undue influence occurred here.

Schena directed his marketers to mislead and deceive doctors about Arrayit’s blood testing services, in an effort to cause them to make referrals to his lab. In particular, Schena directed that marketers should target doctors that were less knowledgeable about allergies and claim that Arrayit’s blood tests were superior to skin tests, even though Arrayit’s tests had significant limitations and allergists considered skin testing to be the “gold standard.” Schena also had all patients tested for 120 allergens, not because it was medically necessary, but because it was the most the machine could process. When the COVID pandemic hit, Schena’s marketers misrepresented the speed and efficacy of the company’s blood tests compared to PCR tests; falsely claimed that allergies and COVID could be confused; and had patients who requested COVID testing also tested for allergies, even when they declined the allergy test. The jury also heard from one of Schena’s marketers who testified that he effectively “controlled” which lab a sample would be sent to.

Although the doctors may have nominally referred patients to Arrayit, a jury could have found that Schena directed marketers to engage in deceitful conduct that gave the marketers undue influence over the referrals. In that sense, Schena paid marketing agents to induce referrals to his lab.

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For these reasons and those set forth in our accompanying memorandum disposition, we affirm

Schena's EKRA and other convictions. As to the restitution order, and as detailed in our memorandum disposition, we affirm in part, and vacate and remand in part.

**AFFIRMED IN PART, VACATED AND  
REMANDED IN PART.**